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Precision SHOOTING



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THE COVER PHOTO

The new and not yet entirely completed pistol range of the Linn County Rifle and Pistol Club at Cedar Rapids, Iowa. The first tournament was fired on this range September 16th with 61 shooters competing (see report under Tournament Circuit).

The Club plans to put a roof over the 26 point firing line before the next tournament is fired in the Spring of 1963.

LOYD J. BRICE

Lloyd J. Brice, Portland, Oregon, maker of the very excellent shooting mitts for riflemen, died unexpectedly on September 7th after less than a day in the hospital.

Mr. Brice's mitt business was a one-man craftsman operation and there is no one qualified to continue it.

TOURNAMENT CIRCUIT

CEDAR RAPIDS, IOWA

The Linn County Rifle and Pistol Club, Cedar Rapids, Iowa, held its first pistol match on its newly built range September 16th with 61 competitors.

At this match, Charles Woodford, Long Grove, Iowa, proved that he will be a competitor to be reckoned with in future matches in this area. He won the .22 cal. aggregate with a score of 575 out of 600 to nose out by one point Lt. Louis Sharp from Rock Island Arsenal. He had a hard time with the center fire matches, dropping to fifth with a 555. This aggregate was won by Jim Hayes, Ames, Iowa, with 567, which gave Hayes a six point lead. But the .45 cal. matches told the whole story. Mr. Woodford, shooting a Smith & Wesson 1955 .45 and shooting double action in the timed and rapid fire matches, shot a 573, eleven points ahead of Mr. Hayes who was second. Woodford finished 1703 to Hayes' 1698 to win the grand aggregate.

This was the first pistol match to be held in Cedar Rapids, Iowa, and the club members doubted that they would have enough competitors to fill one relay on their 26 point range. As it turned out, one week before the match 65 advance entries had been received and entries had to be closed so all competitors could be handled comfortably.

The Linn County Rifle and Pistol Club started construction of their range July 29th and had not put up the roof over the firing line. This led to much concern as the weather forecast was for thunder storms, but the shooters' luck held and not a drop of rain fell.



Trophy winners at Cedar Rapids, Iowa, pistol tournament. Left to right: Max Shaefer, high Sharpshooter; Lt. Col. H. Yount, high Unclassified; R. W. Lindholm, high Marksman; Charles Woodford, Winner; and John Julson, Jr., high Expert.



Charles Woodford, Long Grove, Iowa, winner of the Fall Pistol Tournament at Cedar Rapids, Iowa.

The Club plans to expand the range and put up the roof in time for their next match in the Spring.

Paul Kosek, Sec'y.

Trophy winners in Grand Aggregate

Winner: Charles Woodford, Ia.	1703
2nd Pl. Jim Hayes, Ia.	1698
3rd Pl. Roy Watson, Jr., Ia.	1687
Hi. Ex. John Julson Jr., Ia.	1666
Hi. SS. Max Shaefer, Ia.	1630
Hi. Mk. R. W. Lindholm, Ia.	1537
Hi. Uncl. Lt. Col. H. Yount, Ia.	1472
Hi. Lady Ruth Snowhill, Ill.	465
22 cal. only	

WEST BOLTON, VERMONT

On September 23rd the Capital Rifle & Pistol Club of Montpelier conducted the Northeast's Sportsman's Shoot (Hi-Power National Match Course) on the National Guard Range at West Bolton, Vermont, with 34 shooters competing. Weather conditions were excellent for shooting; comfortable temperature, lightly overcast sky and very little wind.

Vermont's Champ, Creighton Audette,

Springfield, Vt., won the aggregate with his own record score "over the course," a 248-25V. He dropped his two points at 200 yards standing, his 48-2V being 2nd to the 48-3v by A. Stackhouse and outranking L. Weaver's 48-2V. His 50-2V was the only possible at 200 yards rapid fire and his 50-4V at 300 yards rapid fire beat F. Willing by a single V. His 100-17V was the only possible score fired at 600 yards to win that stage a point and 4 V's over F. Willing.

F. Willing was runner-up in the aggregate with 243-17V and followed by G. Pratt 238-20V, L. Weaver 237-14V, and A. Stackhouse 235-13V.

The shoot was well organized and even with competitors taking their turn pulling targets in the pit, it ran off smoothly and with dispatch.

P. H. T.

CONNECTICUT SMALLBORE CHAMPIONSHIP

The 25th Annual Connecticut State Smallbore Championship matches were fired September 23rd on the Blue Trail Range, East Wallingford, with 125 shooters participating.

Though he didn't win a fired match, the consistently good shooting of Carl (Super-Swede) Johnson, Hartford, Conn., won him the championship with a single point margin over defender Lawrence Moore, Aberdeen, Maryland.

The Ten-High in the four match championship aggregate were:

Carl E. Johnson	1583-88
Lawrence F. Moore	1582-94
Virginia Williams	1579-82
Geo. Snellgrove, Jr.	1577-86
Harold Slocum	1575-93
L. Arthur Burton (Ex)	1575-86
Charles Lyman IV (Ex)	1575-82
Sam Burkhalter	1574-100
Lloyd Norton	1574-98
Kenneth Montross	1574-83

Expert Wm. W. Heil won the 50 meter any sight match with 400-35x over Master Carl Johnson's 400-29x. Expert L. Arthur Burton won the 100 yard metallic sight match with 393-19x over Lawrence Moore's 391-18x and Ex. W. Heil's 391-16x. Lawrence Moore won the metallic sight Dewar match with 398-26x, a point up on Harold Slocum's 397-23x. Joseph

(Continued on Page Seven)

The 1962 National Bench Rest Rifle Championships

The 1962 National Championship Matches for Unrestricted Benchrest Rifles, fired on the John Zink Rifle Range near Tulsa, Oklahoma, September 26th through 29th, had a not too large but nationally representative entry of competitors. A total of 56 registered for competition but some did not fire all the matches, a few had the misfortune to disqualify and only 43 completed all the matches of the championship aggregate. The competitor tally by states is: Ark. 4, Calif. 2, Kans. 11, La. 1, Md. 3, Miss. 1, Mo. 5, N. Y. 3, Ohio 9, Okla. 5, Pa. 3, Tex. 6, Wash. 2, and Wis. 1.

For the fired matches and daily aggregates the competitors were divided into the sub-classes; Open—mechanical rests permitted—and Limited—rear rest limited to a sandbag. The 100 yard championship, the 200 yard Championship and the NATIONAL CHAMPIONSHIP went to the best aggregates regardless of class. Of the 56 competitors, 37 were entered in the Open class and 19 in the Limited class.

The first two days were devoted to the 100 yard matches, followed by the 200 yard matches the final two days. The first match each day was a 10-shot "warm-up" (W-U) match which was followed by five 10-shot matches to count for the championship aggregates.

This report is compiled from the final statistical bulletins plus background fill-in by the Chief Range Officer, Bob Berry, and the Chief Statistician, (Mrs.) Lena M. Barton, Wichita, Kans.

Shooters began to arrive at the range the Saturday evening prior to the start of the matches, but we'll start the report with the start of record shooting.

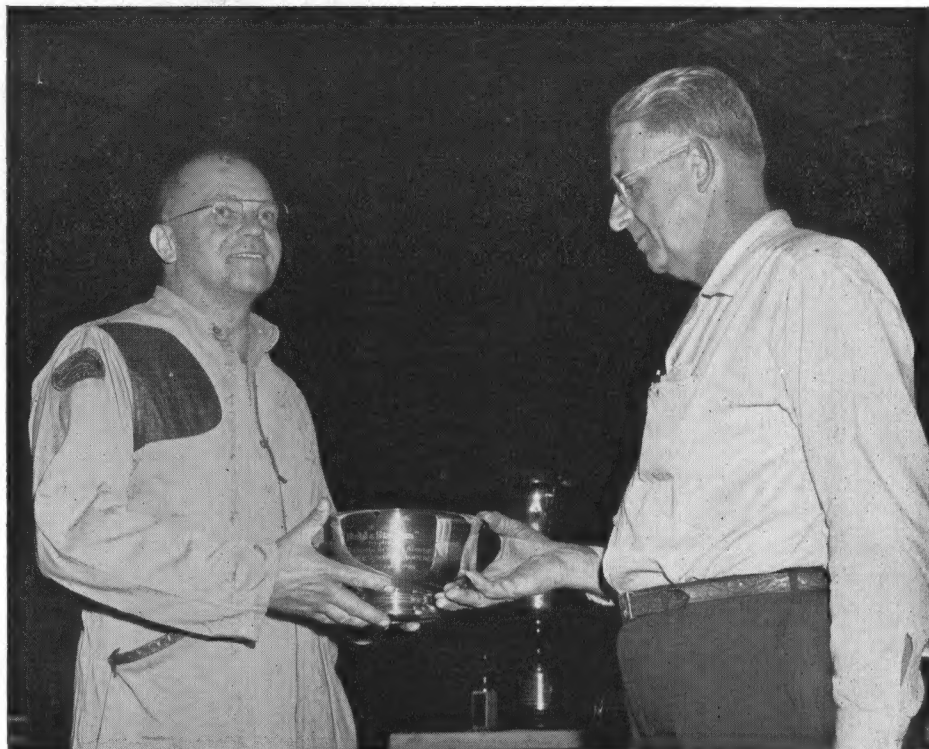
We'll use Bob Berry's reporting of weather conditions for the shooting. Mrs. Barton reports that from personal comfort standpoint the weather was fine; daytime temperatures in the seventies and the sky overcast much of the time. Her observation is that at least some of the competitors found wind enough to be a problem to them on all four shooting days.

WEDNESDAY, SEPT. 26th: Weather was very nice. Some light wind but little of it. The 100 yard match and aggregate winners this day were:

100 Yard Match Winners			
(L)—Limited (O)—Open			
W-U	(O) Al Walther	.290	
	(L) Geo. McMullen	.273	
#1	(O) Dempsey Frost	.310	
	(L) Homer Culver	.365	
#2	(O) L. E. Wilson	.311	
	(L) Robt. Hart	.325	
#3	(O) Wm. Coleman	.257	
	(L) B. Boroszewski	.440	
#4	(O) Clyde Yockey	.227	
	(L) P. Gottschall	.344	
#5	(O) Henry Barton	.253	
	(L) Ralph Stolle	.288	
Daily Aggregate			
	(O) L. E. Wilson	.3348	
	(L) Ralph Stolle	.4052	
	(O) Horace Powers	.4052	

THURSDAY, SEPT. 27th: A little more wind this day, but not too much: Bob Berry reports, "Sort of like most of our daytime shoots at this range. Little complaint from the shooters—some did well, some didn't but the bad scores mostly were not due to weather conditions as such." The winners this day were:

100 Yard Match Winners			
W-U	(O) Barbara Schellert	.300	
	(L) Brunon Boroszewski	.302	
#6	(O) Clyde Yockey	.269	
	(L) Boroszewski	.285	



1962 National Bench Rest Champion Brunon Boroszewski, Buffalo, N. Y., (left) being presented the FIELD & STREAM TROPHY by NBRSA President Bob Hart.

NATIONAL CHAMPIONSHIP AGGREGATE "TOP-TWENTY"				
	Class	Two-day 100 yard	Two-day 200 yard Win)	Championship Aggregate
Brunon Boroszewski	(L)	.4838	.6391	.5614 M.O.A.
Orchard Pk., N. Y.				
Robert W. Hart	(L)	.4257	.6976	.5616 "
Nescopeck, Pa.				
Horace Powers	(O)	.4151	.7358	.5754 "
Okmulgee, Okla.				
Clyde Yockey	(O)	.3848	.8324	.6086 "
Apollo, Pa.				
George Kelbly	(L)	.5356	.6926	.6141 "
Rittman, Ohio				
Dempsey Frost	(O)	.4689	.7610	.6149 "
Akron, Ohio				
George Hendrick	(O)	.5284	.7076	.6180 "
Etna, Calif.				
Homer Culver	(L)	.4705	.7686	.6195 "
Silver Springs, Md.				
Ralph Stolle	(L)	.4087	.8541	.6314 "
Seabrook, Md.				
Paul Gottschall	(L)	.4666	.8126	.6396 "
Salem, Ohio				
William Coleman	(O)	.4548	.8495	.6521 "
Burleson, Texas				
Barbara Schellert	(O)	.4824	.8712	.6768 "
St. Louis, Mo.				
Rick Hornbeck	(O)	.4979	.8615	.6797 "
Wichita, Kans.				
Henry Barton	(O)	.0428	.9568	.6798 "
Wichita, Kans.				
George McMullen	(L)	.4524	.9091	.6807 "
Minerva, Ohio				
William Schellert	(O)	.5112	.8682	.6897 "
St. Louis, Mo.				
Robert Smith	(L)	.5869	.8001	.6935 "
Dallas, Texas				
Robert Stultz	(O)	.5447	.8440	.6943 "
Kansas City, Mo.				
Ed Shilen	(L)	.5589	.8455	.7022 "
Dryden, N. Y.				
Omar Rinehart	(O)	.5744	.8888	.7316 "
Salem, Ohio				
(L)—Limited class (O)—Open class				
#7	(L) Bernice McMullen	.352		
	(O) Henry Barton	.354		
#8	(L) George Kelbly	.295		
	(O) Joe Dunnington		.310	
#9	(L) Robt. Hart		.280	

(Continued on Page Four)

EQUIPMENT USED BY "TOP-TWENTY" IN CHAMPIONSHIP AGGREGATE

Competitor	Cal.	Load	Action	Barrel	Gunsmith	Stocker	Scope	Primer
Brunon Boroszewski	.308	47.0-4895	404	Hart 29½-14	Abramow	Self	B&L	Fed.
Orchard Pk., N. Y.		B&A 147	Rem.	1.360"			6-24	
Robert Hart	.222½	22-4198	Hart	Hart 29-14	R. Hart	R. Hart	Unertl	Rem.
Nescopeck, Pa.		Stolle		1.250"			24X	
Horace Powers	.220	30-3031	Powers	Douglas 29-14	Powers	Powers	Unertl	Rem.
Okmulgee, Okla.	P. S.	B&A 55		1.250"			36X	
Clyde Yockey	.219	29.3 Ball	Rem.	Hart	Yockey	Yockey	Unertl	101
Apollo, Pa.	Don	Culver 55						
George Kelbly	.308	46-H380	Mauser	Douglas 29-14	Kelbly	Kelbly	Unertl	Win.
Rittman, Ohio		B&A		1.250"			24X	
Dempsey Frost	.224	28.2 Ball	FN-S	Hart 26-14	Frost	Frost	Unertl	RWS
Akron, Ohio		B&A	(Sleeved)	1.250"			24X	
George Hendrick	.222M	29.5 H380	Weber	Hart 31-14	Weber	Hendrick	Unertl	Win.
Etna, Calif.		Sierra H. P.		1-7/16"			27X	
Homer L. Culver	.219	Own	Culver	Hart 29-14	Culver	Stolle	Unertl	CCI
Silver Springs, Md.	Don	Own		1.250"			24X	
Ralph Stolle	.222	21.8-4198	Culver	Hart 29-14	Stolle	Stolle	Unertl	RWS
Seabrook, Md.		Culver		1.290"			24X	
Paul Gottschall	.222½	22.2-4198	Own	Hart 27½-14	Self	Self	Unertl	Rem.
Salem, Ohio		B&A		1.250"			24X	
William Coleman	.219	27-3031	Rem.	Hart 29-14	Coleman	Coleman	B&L	Fed.
Burleson, Texas	Don	B&A	722	1.250"			6-24	
Barbara Schellert	.222	20S 4198		Holmes 29-14	Sherer	Sherer	Unertl	Rem.
St. Louis, Mo.		Own	Baucher	1.250"			B&L	
Rick Hornbeck	.222	24.0 Ball	S&L	Douglas 28-14	Barton	Self	24X	Rem.
Wichita, Kans.		B&A		1.250"			6-24	
Henry Barton	.222	23.5 Ball	Rem.	Douglas 28½-14			B&L	Rem.
Wichita, Kans.		B&A	(Sleeved)	1.250"			6-24	
George McMullen	.222½	22.3-4198	Win. 70	Hart 28-14	D. Frost	Self	Unertl	Rem.
Minerva, Ohio		B&A	(Sleeved)	1.250"			24X	
William Schellert	.222	23-3031	Baucher	Hart 29-14	Sherer	Sherer	Unertl	Rem.
St. Louis, Mo.		Own		1.250"			24X	
Robert Smith	.219	26.5-3031	FN	Hart 28-14	Smith	Kent	Unertl	Fed.
Dallas, Texas	Don	Own		1.250"	Coleman		24X	
Robert Stultz	.222	26.5-H-335	FN	Hart 29½-14	W. Smith	Self	Unertl	RWS
Kansas City, Mo.		Engelbrecht		1.250"			24X	
Ed Shilen	.222½	27½ Ball-C	Shilen	Hart 29-14	Shilen	Shilen	Unertl	Rem.
Dryden, N. Y.		B&A		1.250"			24X	
Omar Rinehart	.219	26½-3031	Culver	Hart 29-14	Culver	Stolle	Unertl	CCI
Salem, Ohio	Wasp	Culver		1.250"			24X	

1962 National Bench Rest

(Continued from Page Three)

#10	(O) Barbara Schellert	.304
	(L) George Kelbly	.255
	(O) Barbara Schellert	.271
	Daily Aggregate	
	(O) Clyde Yockey	.3446
	(O) Henry Barton	.3796
	(L) Robt. Hart	.3830

100 Yard Championship

Two day aggregate

	(O) L. E. Wilson, Cashmere, Wash.	
	100 Yard Champion	.3762
	(O) Clyde Yockey	.3848
	(O) Henry Barton	.4028
	(L) Ralph Stolle	.4087
	(O) Horace Powers	.4151

FRIDAY, SEPT. 28th: Bob Berry comments, "A nice pretty day, with the .30 caliber boys not too happy. Boroszewski and Kelbly went around all day whistling—trying to drum up the wind." The 200 yard match and aggregate winners this day were:

Match Winners

W-U	(O) Omar Rinehart	.587"
	(L) Boroszewski	.990"
#1	(L) Harold Zeiser	.987"
#2	(O) George Hendrick	1.055"
	(O) Horace Powers	.903"
	(L) Kelbly	1.100"
#3	(L) Boroszewski	.968"
	(O) Wm. Coleman	1.147"
#4	(O) Geo. Hendrick	.819"
	(L) Robt. Hart	.880"
#5	(L) Kelbly	.686"
	(O) Barbara Schellert	.814"
	Daily Aggregate	
	(O) Wm. Coleman	.5696 MOA
	(L) Brunon Boroszewski	.5735 MOA

SATURDAY, SEPT. 29th: This final day was when Oklahoma weather chose to show its seamy side. Bob Berry comments: "I told all present that on this kind of a day us Oakies put our guns away and

went in to watch TV. Boy! The wind wasn't too strong but it twisted, turned, shifted, and blew from all directions at once. This was the day of disqualifications! On the west end of the range the dust from the bullets blew east, and on the east end, to the west. Actually, in the middle, the dust went in a slow drift; **right straight up!** I mean it had them crying, but good. All but the .30's! Brunon Boroszewski was actually grinning."

The day's match and aggregate winners were:

Match Winners

W-U	(L) Homer Culver	.691"
	(O) Geo. Hendrick	1.266"
#6	(L) Robert Smith	1.154"
	(O) Dempsey Frost	1.231"
#7	(L) Homer Culver	1.052"
	(O) Clyde Yockey	1.100"
#8	(O) Dempsey Frost	.929"
	(L) Homer Culver	1.280"
#9	(O) Wm. Coleman	1.283"
	(L) Boroszewski	1.413"
#10	(O) Horace Powers	.673"
	(L) Geo. McMullen	.908"

Daily Aggregate

(L) Brunon Boroszewski	.7047 MOA
(O) Dempsey Frost	.7170 MOA
200 Yard Championship	
Two day aggregate	
(L) Brunon Boroszewski	.6391 MOA
(L) George Kelbly	.6926 MOA
(L) Robert Hart	.6976 MOA
(O) George Hendrick	.7076 MOA
(O) Horace Powers	.7358 MOA

A BOW TO A GOOD SPORTSMAN:

After winning the 100 yard championship with a comfortable lead, competitive tragedy struck L. E. Wilson in the second record match at 200 yards. Only 9 bullet prints could be found in his backer target. When the referees took the target and backer to him, without looking at either,

Wilson asked if there were 6 shots on the sighter target. When told that there were, that confirmed his suspicion that he had failed to replace a record cartridge after putting a shot back on the sighter to confirm a condition change during the record string. That must have been a terrible disappointment but, true sportsman and real competitive rifleman that he is, he finished out the championship program with excellent groups. Barring that one unfortunate match he would have been a championship threat to the end. By substituting the biggest 200 yard record group that he fired in the two days for the disqualified match, he would have ended up no lower than 4th in the championship aggregate. But, "what might have been" is little comfort for such a disappointment, as others in the past have found out.

AWARDS: To the National Champion went possession of the big Whelen Trophy and the FIELD & STREAM Bowl, and the Bausch & Lomb Plaque for permanent possession. The 100 yard Champion was awarded the Speer Trophy and the 200 yard Champion the Sierra Trophy. The high ranking twenty in the championship aggregate received the coveted "TOP-TWENTY" brassards and year tabs from the NBRSA while 2nd through 6th places in that aggregate were awarded trophies supplied jointly by the Mid-Continent Region and the Tulsa Bench Rest Rifle Club. The winner of each day's aggregate received a trophy supplied by the Tulsa Club. The winner of each record match and aggregate, in each class, was awarded a lariat tie by the NBRSA.

There were optional cash pools for all matches and aggregates for each class, with 11 Limited class and 15 Open class shooters participating in the money pools. In the cash pools, winner took the pot, there were no consolation prizes.



The TOP-TWENTY in the 1962 National Bench Rest Championship Aggregate. Back row (left to right) Henry Barton, Kansas; Bob Hart, Pa.; William Coleman, Texas; Dempsey Frost, Ohio; Ed Shilen, N. Y.; Barbara Schellert, Mo.; and Ralph Stolle, Md. Middle row: Horace Powers, Okla.; George Hendricks, Calif.; Clyde Yockey, Pa.; Brunon Boroszewski, N. Y.; George McMullen, Ohio; Omar Rinehart, Ohio; and Bob Smith, Texas. Front row, kneeling: Richard Hornbeck, Kansas; Robert Stultz, Mo.; Homer Culver, Md.; George Kelbly, Ohio; Paul Gottschall, Ohio; and William Schellert, Mo.

EQUIPMENT: While there is no required standardization of equipment in Benchrest, the program is old enough that certain items are emerging by choice and performance as outstanding favorites. A brief over-all survey of principal items of equipment shows some of the trends.

All but three shot .22 caliber rifles. Over two thirds of the competitors in this meet used one or another of the 222 family of cartridges; 26 using the standard 222 Rem., 9 the wildcatted 222½ and 4 the 222 Magnum. Ten shot the .219 Donaldson or Wasp cartridge while four shot other .22 cartridges, three of them being the 220 Swift or Wasp cartridge while four shot other .22 cartridges, three of them being the 220 Swift or based on that case. Three shot the .308 Win. cartridge, one of them only in the 200 yard matches but the other two the full championship course—the Champion and fifth place George Kelbly, with both at the head of the class in the 200 yard aggregate.

Rifle actions are "shooters choice" with Mauser (12) and Remington (11) heading the list. There were 5 Schultz & Larsens, 3 Japs, 2 Springfields and 1 Win. M-70 (which was sleeved). In the custom made actions the Weber led with 7, followed by 4 Harts, 4 by Baucher (believed to be sleeved jobs), 3 by Culver and 1 Shilen. Three shot their own hand made actions. Four Remingtons and one Winchester were indicated as being sleeved.

Thirty-eight shot Hart barrels, fourteen shot Douglas barrels and two each

with Holmes and Day barrels; and you'll note this is just about the proportional representation among the Top-Twenty competitors.

Over three-quarters of the competitors used Unertl scopes (44), 6 used Lyman, 5 the Bausch & Lomb 6-24, and 1 a Litschert.

All but 8 of the competitors used either their own or custom hand-swaged bullets, 7 used Sierras and 1 used the Sisk.

Remington was the favorite primer among these shooters with 29 using them, 10 used RWS, 8 CCI, 5 Federal and 4 Winchester.

MRS. BARTON COMMENTS: "I feel sure this was one of the smoothest run shoots ever held. L. E. Wilson said it was the best run National shoot he had ever attended and several shooters said much the same thing. Bob Berry, Pawnee, Oklahoma, served as Range Officer and he did a superb job. He was supplied with a chart showing the bench assignment for each competitor in each match and each relay. This kept the matches going on schedule. If a bench was empty after he called "shooters on the line" he knew who was missing and could summon them over the PA system. He was patient, courteous and firm at all times and certainly deserves a round of applause for the job he did."

(Bob Berry gives a lot of credit for good match operation to his capable assistant range officer, Leo Gillman from Hot Springs, Arkansas, and to the target detail under direction of A. W. Ham from Sem-

inole, Oklahoma, who were on top of their job all the time.)

"Mr. John Sweany, Director for Southwest Region, acted as official scorer, assisted by Dr. Rod Janson, Director for Northwest Region, and Larry Engelbrecht, Director for Mid-Continent Region. The target measuring was handled in this way: One person measured the target with a K & E Scoring Gage, drew a line along the edge of the two widest shots—two lines if the group appeared to be symmetrical—and then passed the target to the operator of the measuring device. The operator of the device marked the widest reading on the face of the target. Then a third person made a final check of the measurement marked on the target with a K & E Scoring Gage. This proved to be an excellent system. If I remember correctly there were only three or four challenges as to measurement and in each case the scoring detail proved to be right.

'Friday night Al Walter from St. Louis, newly elected NBRSA President, went varmint calling with Texans Bonner and McLaren and bagged a couple of bobcats. McLaren did the calling and Bonner and Bob Berry went along as observers. Al said one of the cats was shot at 125 yards but it seemed 500 yards to him, in the dark with those eyes gleaming. He was pretty excited and happy about it all.

"Al had taken the scope off his bench rifle to put on his varmint rifle for the hunt. Next morning when the first match started he didn't have the scope zeroed in on his target. Bob Berry used the count-down system and when he reached four minutes to the end of the match Al still couldn't find the target. Homer Culver dashed off and got Al a gun and he machine-gunned the ten shots and saved disqualifying that match."

Random Shots

By Betty Summerall Duncan

Once again we invite you to tune in on our uncensored channel where the shots are called as we see them (to plagiarize a bit from a well-known sports telecaster).

As you read this, it will have already been determined whether or not our American teams defeated or bowed to the subsidized Russians at the 38th ISU World Championships in Cairo, Egypt, October 11-20. From this vantage point, writing in advance of the stirring engagement, our hopes are centered on Gary Anderson, winner of both the Smallbore and High Power crowns at the 1962 U. S. International Championships at Lackland AFB, Tex., Sept. 12-20. Anderson, until recently, a member of the Army Advanced Marksmanship Unit, Ft. Benning, is now studying for the ministry, with the ultimate goal of returning to the Army as a chaplain and shooting again for the Army. His victories were by a comfortable margin as he stayed well out in front of the field, averaging in the 1140s and 1150s in the Int. Smallbore . . .

Capt. William McMillan, USMC, former World Pistol Champion, won the rapid-fire championship at Lackland, to give us a very strong contender for top pistol honors. It is an education to watch this friendly chap perform. He allays any firing-line nervousness by engaging in conversation with those around him between strings. Defying the accepted procedure, his consistently top scores are obtained by canting his gun, shifting his stance, looking around at his friends, and, in general, "having a ball."

From the information we've been able to muster (there was a bit of uncertainty in the stat office at the time), the smallbore team looks like Anderson; Nat'l Smallbore Position Champion Capt. Tommy G. Pool, USA; the 1960 Olympic silver medal winner G/Sgt. James E. Hill, USMC; Int. veteran Capt. Verle F. Wright, Jr., USA; Lt. John Bertva, USAF. The name of the 6th-ranking shooter is unavailable to date. The schedule, it seems, designated the selection of six shooters from each category, but as at least two men made both the smallbore and high power teams, it was decided to field a 7-man smallbore team. National Smallbore Prone Champion Lt. Presley W. Kendall, USAF, who tied for the Nat'l Position title (which he lost by a Creedmoor), was selected to round out that team. . . . In addition to Anderson, we only have Capt. Daniel B. Puckel, USA, and Pool listed on the high power team. . . . Old Glory should wave proudly over this group of fine competitors.

The performance of 17-year-old Marianne ("Candy") Jensen of Allen Park, Michigan, at the Women's Team Try-outs at Ft. Benning, Ga., has stirred real admiration in all of us. Not only did she place first in the try-out with 1771X1800, but on the final day, she fired a score so good that it would have been an open international record had it been fired in international competition! Her 598 surpasses the int. record held by a top-ranking Russian (male) shooter. Firing 3 times over the 60-shot English course, prone, on the 50-meter I. S. U. target, metallic sights, the girls were allowed 2½ hours for each 60-shot stage. This petite, 108-pounder, took only 33 minutes to turn in such an incredible score. Nice going, Candy! . . . Runner-up was National Ladies' Champion, 21-year-old Janet Friddle, Toledo, Ohio, with 1761. These two were the only feminine members of the 1962 Int. Dewar team,

and, the way they are going, the hefty Russian women have no doubt been convinced that brawn isn't the most important factor in shooting . . . 3rd spot in the try-out went to young position shooter May Michelson, Tucson, Ariz.; Nat'l Women's Collegiate Gallery Champ Jillann Brunet was 4th, with the same score as Mrs. Kristin Duncan (Emmett's wife) of Costa Mesa, Calif., who was 5th; Mrs. Inez Sargent, Houston, Tex., finished 6th, and Virginia Williams, Stamford, Conn., was 7th. There are a couple of names missing from the list of 11 competitors so we will refrain from naming the last two places. Obviously, more women were invited than tried-out, which would seem to account for the number of position shooters at this prone competition. But, some of the position shooters gave a good account of themselves, so one never knows. . . . Sending women to the World Championships is an innovation for the U. S. and the number of team members was limited to 2 for smallbore, 2 for pistol, and 2 for shotgun. As one of the shotgun shooters could not make the trip, we understand that Col. Sharpe named smallbore shooter, Mrs. Marianne Driver, to fill that spot.

My sympathies to my former club members, the Bayou Rifles Smallbore Division, who hosted the floating Western Wildcat 6400-point tournament in Houston, Texas, Sept. 6-9. Knowing how easily it can rain in Texas whenever there's shooting on the agenda, I can appreciate how disappointing it must have been to have a deluge 3 days out of 4 and to have the tournament become known as the "Floating Tournament of the Mallard Ducks." (Texas isn't the only place where it rains, however; one tournament I attended in Maryland had to be cancelled and competitors were there from as far away as N. J. In Seattle I changed clothes every couple of hours until I had exhausted my supply of dry clothes. In my home territory—the Southeast—I wasn't so fastidious, and once in Knoxville, I settled down and enjoyed the mud, barefooted, as I have also done in El Cajon, Calif. So, if I have succeeded in squaring matters with those genial Texans, I shall proceed.)

Dick Hanson, Ft. Worth, (former Capt., USAF, and Art Cook's coach at the Univ. of Md.) waded through the field of 92 competitors to take a hard-fought 6389-483X victory over George Stidworthy, Prescott, Ariz., who came through with a 6388-517X and Oscar Morris, Hobbs, N. M.—6388-462X. Western Wildcat Champ Herb Hollister, Boulder, Colo. was a point behind with 461Xs. Nat'l Civilian Champion William E. Summers, Akron, Ohio, was well up there the 1st two days, then in a single stage of the metallic Dewar on Saturday he lost 15 points. It was a mystery to everyone, but particularly to Summers—until he discovered that a bug bomb, which had been packed in with his ammo, had broken under pressure and soaked the bottom boxes in the various cartons. Stidworthy commented to Ed that he shouldn't have any bugs in his ammo, but George confessed that his remark did little to compensate for the loss. It is decidedly to Summers' credit that he was able to finish 5th in the Grand with a 6374-498X in spite of such a handicap. It just proves that one shouldn't give up after losing a fistful.

Putting personal comfort above their love of shooting, several unseasoned competitors headed for home after only two days of braving (?) the elements.

This has been a prolific season for smashing national records, which would in-

dicade, perhaps, that this nation of riflemen is taking its shooting more seriously. We haven't heard George Stidworthy griping about the Houston weather. He went home happy, even though he missed out on the Grand, with one of the biggest "plums" of all in his possession—the National Record for the double any sight aggregate. 16Xs over Joe Steffey's old record, George's 3199-277X should stand for quite awhile. . . . Stidworthy has a new gimmick for breaking records, but we don't recommend that you try it. After one downpour, he ran out to see what shape his rifle and other equipment were in out on the firing line, which was under water. As he jumped across one of the pools, he came up under a steel brace and knocked himself out. It seemed for awhile that his neck might be seriously injured. Two fellows carried him to an improvised first-aid station, applied iodine, and sent him "back to work." This was during the scope matches, and in the very next match he only "bobbled" out 2 Xs for a 400-38X! . . . His re-chambered Douglas-37 is performing like a jewel, with some assistance from that fellow behind the butt. An interesting thing about this gentleman, who migrated West from N. J. and who operates the Lazy-S Shooters Service—he knows his limitations. How many shooters get butterflies when the pressure is on and do nothing about it? I remember once giving George a couple of headache tablets and he shot a 1600. But, I suspect that his motive for shooting a 12-power scope is to forestall those butterflies before they effect disastrous results. It proves one point irrefutably, that no one else has fired 320 shots as well with a 20X or 24X scope (but they didn't get knocked unconscious either!)

Summers "floated" to his metallic agg. with 1599-121X. Hanson cleaned the first any sight agg. with 1600-130X. Hollister Creedmoored Morris in the second metallic sight agg.—1597-118X, and Stidworthy's 1600-140X took the Sun. any sight agg. He was also winner of the second 3200-agg. with a 3196-249X score, while the 1st 2-day agg. went to Hanson—3197-246X. Hollister won the metallic sight championship with an excellent 3195-223X, just 14Xs under the record. Stidworthy was high in the 100-yd. agg.—799-60X over Creed Page, Grand Junction, Colo. with 799-48X. . . . Individual match winners were Summers, George Whittington, Morris, Hanson, Henry Benson, Page, Hollister, Floyd Gibson, and Stidworthy.

The feminine competitors were comparative newcomers to the tournament circuit (as Inez worked in the stat office). High among them was sharpshooter Karen Lawson, Carswell AFB, Ft. Worth, who hails from Campbell, Calif. with a 6317-330X. High Junior was James Dartz, Orange, Tex., who was also Hi-Sharpshooter—6334-341X. Airman John Haggard, stationed at El Paso, won the top share of the Expert class loot.

It was necessary to dispense with the team matches as the downpours slowed things down somewhat. Lest we forget to mention it, the weather man expended his wrath by the final day, which considerably brightened the spirits of the dampened shooters.

Knowing how much work is involved in the operation of a 4-day tournament, we are passing on the favorable comments we have heard about this one, including bouquets to the stat office, to all the local club members for their friendliness, and to Inez and Raymond Sargent for their usual gracious treatment of out-of-town shooters. In addition, we should like to pay tribute to one of the unsung heroines—Ann Curry.

Together with her husband, Fred, their hospitality and energy were without limitation. Living near the range, she served breakfast to a large crowd at 5:30 each morning when firing commenced an hour earlier due to the rain and there were no restaurants open. She was one of the mainstays in the stat office each day, and worked diligently and late, as on the night when she was stranded at the range after dark with a car which wouldn't start. On that particular night, she and another shooter's wife, Maggi Shahan, had invited a number of out-of-town shooters to dinner at Maggi's house. The hungry guests arrived and waited until Fred went to look for the embarrassed hostess. They dined in due course and the evening was a success, in spite of Ann's discomfiture. Also, she marked the targets for all of those matches (Note: in Los Angeles, the shooters mark their own targets; i. e., comp. no., match no., stage no., and no. of firing point, with more success than when the tournament sponsors marked them, as now there is no danger of a competitor's receiving the wrong numbered target and receiving a lower score than his own. It also eliminates work for the tournament sponsors and the assist. range officers. But, since they prefer in Houston to mark them in advance, we commend Ann for doing the job). Best of luck, Ann, to you and to your beautiful, 11-year-old daughter, Rosemary, with your shooting!

Ordinarily I delight in shooting lore. I was raised on it. But, I can only feel shame for the shooting fraternity that it has become necessary to bring certain skeletons from certain closets. We have an eye-witness report from the National Pistol Matches. It seems that a top contender for championship honors had fired a beautiful 9-shot group in .45 slow-fire, when he was overcome by that old disease, "buck fever." He took careful aim, but just couldn't get the 10th shot off. He brought his gun down, then subsequently made a couple more unsuccessful attempts before succumbing to the temptation to save a shot. Placing the weapon in his kit, he failed to take cognizance of the fact that there was still one in the chamber. As backign targets are not used in pistol tournaments, it was unable to be determined that only 9 shots appeared on the target. Thinking that he was safe, he prepared to fire his .45 timed fire, inserted a new clip in his gun, and snapped the trigger. Much to his chagrin, it blasted a hole in his kit. How very fortunate that no one was killed! He was immediately yanked off the line and disqualified. Someone has termed this "poetic justice." At this point, it seems appropriate to inquire, "Do pistol shooters need backing targets?"

The smallbore game also has its problems in respect to "cheating." The irony of it is that the shooters concerned think they are getting away with something when, in reality, they are fooling no one. News of these surreptitious tricks generally spreads like wildfire, and the shooter involved goes blithely on with his treachery, unaware that his notoriety has become nation-wide. . . . Fingering shots is the commonest act of cheating. To forestall issuances of dishonorable discharge from the shooting game, my husband, Don, who is Executive Officer of the Los Angeles Rifle and Revolver Club, has initiated a system which is working very well at tournaments here. It also worked successfully at the 6400-point Western Wildcat Championship in Phoenix, where he served as Exec. Officer. Competitors are not allowed to touch their own fired targets. They change

the target of the competitor to their right. We entertain the hope that the offenders, few in number to set the record straight, will ultimately realize the purpose of this experiment and change their ways before their shooting careers are abruptly terminated. . . . One well-known northwestern shooter elaborated on the "fingering" process; he applied colorless nail polish to the outside edge of a close shot so that the gauge was pushed in to the 10-ring. . . . I'll never forget how disillusioned I was to discover a mechanical arm in a top shooter's coat. It became breezy at the range and someone suggested that I use John Dow's coat for warmth. But, I could hardly lift it! . . . A picture was taken of a certain champion, shown resting on his scope stand. The photo was recently destroyed for strategic reasons. . . . Then, there is the matter of a coil of rope being used between the cover of the shooting mat to provide a solid nesting place for the left elbow. Various such contraptions have been rigged in shooting coat sleeves. . . . Of course, there are the famous elbow holes on unpaved ranges. . . . It has been known for husband and wife teams to set up devious signals to coach each other when they are squadded close together. . . . Another shooter was jerked off the line by the seat of his trousers by an official during the firing of the Int. Dewar Team match one year, with the admonition that he never again assume such a low position. . . . One last word (for the time being) on this distasteful topic—it is infinitely more rewarding to place second instead of first, or even to go home empty-handed, when it is done honorably, than to take awards away from their rightful owners by foul means. One old shooter estimated that his first medal cost him \$2000, but he won it fairly and had every right to be proud of it!

Denver was the scene and Herb Hollister was in the spotlight as he again returned home with the Colorado state smallbore championship in his pocket after the weekend of Sept. 1-2. Hollister's Grand Agg. score was 3190-241X and he took the Metallic Agg. with 1594-117X over Clarence Cope, Albuquerque, N. M., who tallied 1591-105X. Runners-up in the Grand were Ray Steele, Denver — 3188-219X — and Creed Page—3185-202X. Page won the Any Sight Agg. with 1599-120X over Steele's 1598-119X. 36 competitors from 8 states were entered.

Incomplete returns just in from Dallas on the "Big D," fired Sept. 22-23, show Ohioan Ed Summers edging Whittington by 1 point in the Grand. Summers took the Metallic Agg. with 1597-114X over Whittington's 1596-114X. Oscar Morris placed 3rd with a 1593-108X score. Our calculations give both Whittington and Summers 1599s in the Any Sight Agg., with Whit probably having the high X-count. He lost his point on the last bull in the last match, the meter, which may have cost him the tournament. Summers apparently totaled 3196 to Whittington's 3195. (He obviously got those bugs out of his ammo).

It is always interesting to find old friends' names on tournament bulletins. Lynn Roberson was there from Oklahoma and placed second to Morris' 400-34X in the 50-yd. iron with 400-29X. My old friend, Lt. Col. Jim Boddie, USAF, (from Georgia, an Expert, won the 50-meter metallic with 399-26X, the only match which went for less than a possible. The 100-yd. went to Whittington—400-28X, and veteran T. J. Patterson, Waco, claimed the Dewar with 400-30X. "Pat" won the 2-day Dallas tournament in April. . . . Whit-

tington won both the Dewar any and the 50-yd. with 400-35X and 400-39X, respectively. The 100 yd. went to Dick Hanson with 400-33X, and Summers finished up with the meter—400-34X. Note to benchrest shooters: your former national champion, Bob Smith, placed second at 50-meters with 400-29X. "Benchrest" Smith, as he is usually known in smallbore circles, shoots excellent scores with scope. We hope that he will eventually be successful in finding the right combination to produce the same metallic sight results.

Patterson was 1st in the NRA Building Fund match—a Dewar agg.—with 800-62X, followed by Summers' 800-58X and Whittington's 799-64X.

Many of the Texas tournaments are set up to include the firing of 2 iron and 2 scope matches each day. This provides an opportunity for those who have to work on Saturday to compete in a Sunday Agg. and to gain competitive experience with metallic sights, rather than firing the usual all-scope program the second day. Again it was Summers first, with 1599-127X, and Whittington, second with 2 points down in the Sunday agg.

The 2-man team match went to the Expert team of R. C. Kyle and Ervin Fabianke for their 800-61X. Runners-up were Inez and Raymond Sargent with 799-65X.

The program featured a 3-position match each day, the first day's winner being H. M. Soule with 289-13X. James H. Ayres, an Expert, was in the lead the second day—288-8X. . . . This "Big D" drew 105 competitors.

The Rifleman of Great Britain reports that in recent months the Council of their Nat'l Small-bore Rifle Assoc. has entertained Mr. Franklin L. Orth, Exec. Vice-Pres., and Mr. Robert M. Modisette, Jr., Chairman Smallbore Rifle Comm. NRA of America. Preliminary arrangements were considered for an official U. S. A. team to visit Britain, mainly for competitive team and individual shooting at Bisley. . . . Try-outs for the team will be held in the spring, at a site to be determined. Dallas, Tex. could possibly get the edge. It is rumored that Bob Modisette will captain the 10-man team and that George Whittington will be coach. . . . All eligible competitors for the try-outs are hereby extended a cordial invitation to keep your shooting in top form by attending the Pacific States Fall Round-Up, Nov. 3-4, in Los Angeles. The tournament is not limited to potential int. team members, however, and all others will receive a warm welcome.

Any of you who would care to transmit news, salty stories of a shooting nature, or original ideas may be assured that all contributions will receive grateful personal attention. Address them to:

(Mrs.) Betty S. Duncan
8630 Olin Street
Los Angeles 34, Calif.

Tournament Circuit

(Continued from Page Two)

Diaz, Jr. won the final match, the any sights Dewar, with 400-30x and Slocum was again the runner-up with 399-30x.

MURRYSVILLE, PENNSYLVANIA

R. K. "Bob" Moore, Claysville, Pa., added another trophy to his long series of Championship wins by taking the Penna. State 50 meter free rifle championship, fired at the Murrysville range September 29th and 30th.

The contest was an open match, with the State Championship restricted to State residents. T. Y. "Denny" Wu, Ann Arbor, (Continued on Page Eight)

Tournament Circuit

(Continued from Page Seven)

Mich., was the open winner with a score of 1103 out of a possible 1200. State Champ Moore was close behind with a 1099. Mike Eddy, Brave, Pa., was third man with 1095. Lady shooter Dee Morris, Mars, Pa., was fourth with 1095 and shot the high standing score, a 348. R. L. White, Dearborn, Mich., filled out the first five with his 1093.

The match called for 40 shots each from the prone, kneeling and standing positions at a distance of 50 meters (54 yards) with the .22 cal. rifle with metallic sights. This is the same type match that is fired at the Olympic Games and will be fired at the World Championships this Fall.

Weather for most of the match was of the threatening type with an occasional spatter of rain from the overcast which persisted for the weekend.

This match closed out the outdoor season of three such matches that the Murrysville Rifle Club has held each season for the last six years.

Wm. R. Funk, Sec'y

(Mr. Funk had this additional comment and information in a letter which accompanied the match report.—Ed.)

"For people in this neck of the woods who like free rifle shooting, there is a kind of a circuit that can be made. We (Murrysville) have three matches a season and plan to do the same next year. The Associated Gun Clubs of Baltimore, Maryland, have held two matches each season; they tell me that they plan to have their firing line covered for next year. The Maple Leaf Marksmen at St. Catharines, Ontario, have held three matches at their fine range this year. Ted Harrison and Jack Clinton head up a fine club there and deserve a lot of credit for their efforts. The triangle here is a little on the large side, but the distances aren't too great if you like to shoot. Boiling it all down, there was a 50 meter free rifle match to shoot in May, June, July, August, September and October (2 in July and 2 in October)."

38th WORLD SHOOTING CHAMPIONSHIPS

By John Foster, U. S. Rifle Team

CAIRO, Egypt, Oct. 13, 1962: The rifle range is a 3-story building and very elaborate. Has 80 smallbore firing points on the ground floor. Second floor is a balcony with some of the offices and team rooms. Third floor has 55 big-bore firing points and the remainder of the 40 team rooms. Also a restaurant and large patio. The pyramids are about 1/2 mile behind the range. Range faces north and there is a strong glare on the targets in the morning. A very tricky North wind prevails.

Today the Olympic Match was fired—60 shots prone at 50 meters, individual and 4-man teams. Temp. 80°, wind 2-5 MPH, Bright. World Record, 594. The high ranking scores were:

Individual Match

Karl Wenk, W. Ger.	594
Tchoujan, U. S. S. R.	592
James Hill, U. S. A.	592
Sirbu, Romania	592
Johanson, Sweden	591
Gary Anderson, U. S. A.	591

Team Match

Sweden	2355
U. S. A.	
Hill	592
Anderson	591
Kendall	588
Puckel	583.....2354
West Germany	2351
Romania	2350
U. S. S. R.	2348
Candy Jensen, U. S. A., ranked 5th in	

the Ladies' Prone Match.

A breakdown of equipment showed:
RIFLES—Anschutz 40; Russian rifles 13; Finnish Lion 6; Walther 5; Schultz & Larsen 4; Hammerli 3; Remington 3; BSA 2; Winchester 2; Custom 1.

AMMUNITION — German RWS (R50) 26; Mark III 25; Rem. 3; ICI (British) 3; Russian 5; Lapua (Finnish) 4; Swiss 3; CIL (Canadian) 2; and Czech. 2.

Equipment used by first 6 individuals:—Wenk, Anschutz and R50 (RWS); Tchoujan, Russian and Russian; Hill, Anschutz and R50; Sirbu, Anschutz and Mark III; Johanson, Anschutz and R50; Anderson, Anschutz and ?.

The winning Swedish Team all used Anschutz rifles with three shooters using R50 and the fourth Mark III. The R50 ammo made its appearance early this year and has certainly proven itself.

Cairo, October 15: Gary Anderson, Axetell, Nebraska, broke the 50 meter standing record by two points yesterday with a 376. Today he proceeded to beat the three-position 50 meter free rifle record and become world champion with 1157—eight points over the old record—394 prone, 388 kneeling and 375 standing.

Yesterday's official results and equipment:

Smallbore Standing	
Anderson, U. S. A.	376
Anschutz and R50 (RWS)	
Vogt, Swiss	367
Anschutz and Swiss ammo	
Pool, U. S. A.	367
Remington and Rem.	

Teams	
U. S. A.	1464
Swiss	1442
East Germany	1428

Smallbore Kneeling (record 391)	
Wenk, W. Germany	388
Anschutz and R50	
Niazov, U. S. S. R.	387
Rus. and Rus.	
Jensen, Denmark	387
Anschutz and R50	

Smallbore Three-Position	
Anderson, U. S. A.	1157
Anschutz and R50	
Niazov, U. S. S. R.	1147
Rus. and Rus.	
Vogt, Swiss	1142

Anschutz and Swiss ammo
Equipment used in the 50 meter Smallbore Free Rifle match was:

Rifles	Ammunition	
Anschutz	40 RWS-R50	21
Russian	14 Mark III	18
Finnish Lion	6 Lapua (Finn)	13
Schultz & Larsen	5 Russian	9
Hammerli	5 Swiss	7
Walther	2 Remington	3
Remington	2 CIL (Canada)	3
	ICI (English)	1

The Skeet Team shot a 394 for a new world record, beating Russia by 2 birds. However a Russian shot 200 straight for a new individual record, followed by another Russian with 198. Tommy Heffron of the Air Force came in 3rd with 197, followed by Ken Pendergras of the Navy with 197.

Center Fire Pistol

Rakalow, U. S. S. R.	590
Chaiduriw, U. S. S. R.	589
Blankenship, U. S. A.	588

In the Women's Smallbore Rifle Free Rifle event, 30 shots each position, a Russian woman won with 862, followed by another Russian woman with 853, third was an East German woman with 825. Jan. Friddell placed 7th with an 816.

Cairo, October 18: Gary Anderson is still at it. In the 300 meter free rifle event he set a new prone world record of 395 and then won the world championship with an

(Continued on Page Eighteen)

CLYMER CHAMBERING REAMERS

By Creighton Audette

Recently Phil Teachout, editor of PRECISION SHOOTING and one of my good friends, sent me a set of reamers to test. These were standard grade, solid pivot, chambering reamers for the .308 Norma Magnum cartridge, and were manufactured by Clymer Grinding Company, 14241-C West Eleven Mile Road, Oak Park 37, Michigan.

When I first dealt with this company, some twelve or fourteen years ago, the name was Fuller Tool Company. I don't have the details of the reorganization or the change in name, but I can truthfully report that the reamers I bought from Fuller were of excellent quality and the ones received for test are as good or better.

In addition to chambering a good number of barrels, I have made several sets of chambering reamers, including some for wildcat cartridges, where I made full length sizing die reamers to match the chambering reamers. I think I have a pretty good idea of the skill and care which goes into a good set of reamers. A chambering reamer is a long slender form tool, which is required to cut a smooth and accurate hole in tough barrel steel. It must be ground to narrow tolerances and to a smooth finish, since the size and finish of the chamber will directly reflect these qualities in the tool. By the very nature of its use, it is subjected to high torque loads, which increase its natural tendency to chatter, so the spacing of the flutes must be staggered and the backing off of the cutting edges must be a nice balance to provide free cutting, chatterless operation, and an edge which will hold its size and keenness. Size of flutes and lands must be balanced between chip clearance and the size lands required for long life and a chatterless cut. Angles, radii and tapers must meet and blend into one another smoothly and without any discontinuities. Pilots must be correct size to match groove diameter of barrels and ground very smooth so they will not mar the lands.

In testing the .308 Norma reamers, two barrels were chambered. One of these was a Winchester model 70 bull barrel, which was recut from .30-06 to the .308 Norma. The reamers cut easily and smoothly on this barrel. The other barrel was a real tough one. The blank was 17-AS Timken steel and the rifling had been formed by cold forging, using the Fellows-Appel cold forging machine. In this process the O. D. of the blank is reduced from about 1.400" to about 1.200" while the rifling is being formed. This elongates and changes the grain structure of the metal so that what is already a tough steel to machine becomes even worse. I had to take it slow, clean chips away often, and use a heavy duty cutting fluid, but the Clymer reamers came through with flying colors. There was no problem with chatter, the hole smoothed up with the usual amount of polishing, and measurement of fired cases showed a chamber of correct size and form. In preliminary tests, both barrels have given excellent accuracy.

Clymer chambering reamers are top quality and an excellent value at their price level. I recommend them without reservation, although I would suggest that gunsmiths doing precision chambering for benchrest or target work buy the removable pilot reamers, since extra pilots are available from Clymer for exact to individual barrel bores.

4831 POWDER

By Fred W. Hallberg

Several months ago, I made some general comments concerning 4831 powder. Now, I have had an opportunity to test the powder that is currently available and I've gotten the impression that it is quite different from the previous. The powder with which I had previously worked and commented on was factory fresh. A powder chemist might attribute the difference to deterioration, but deterioration or no, the present powder is an improved product for the handloader when intelligently used. It is particularly suitable for heavy loads in magnum-type bottle-neck cartridges but it can also be used with proper bullets and primers in moderate capacity cases such as the .30/06 and its many necked-down and reformed variations.

4831 was originally used in several types of heavy cartridges. The one with which I was familiar was the .50 caliber spotter round. This is a shortened version of the .50 caliber machine gun cartridge loaded with a long heavy bullet. It was fired from a rifle mounted above and parallel to a large calibered recoilless weapon. The spotter bullet had the same trajectory as the major round and its purpose was to spot, by means of a puff of smoke, the probable landing area of the larger shell. 5010 machine gun powder was much too slow for this short cartridge but 4831 proved almost ideal when ignited with a heavy .50 caliber primer. When using 4831 in our more moderate reloads, let us not forget this requirement for heavy ignition. Certain loads under proper conditions of confinement can be ignited with standard primers but such loads should never be finally accepted until confirmed by a sufficient number of tests at the longer ranges—say 300 to 600 yards. 4831 is a full-case powder and particularly applicable to the use of heavy bullets.

The fact that the current powder might be different from that which I had previously used occurred to me while scoring for one of our top flight big-bore competitive shooters at a recent match. He was firing a .30/06 bolt action rifle (26 inch barrel, iron sights, prone, slow fire) at 300 yards. The target was the standard "A" target with four inch "V" ring. The course of fire was ten shots. Nine of his ten shots landed in the "V" ring. The shot that missed was only 3/8 inch out in the black. Had his group been more perfectly centered, all shots would have been well within that four inch circle. He was shooting a 168 grain Sierra match bullet over 56 grains 4831 and a Winchester 120 primer. Luck or no, his achievement made me take a closer look at 4831 powder. Then, additional inquiry uncovered other results concerning its use in .30/06 rifles under verified match conditions. Such conditions are important. Pressure is always present and luck may play a part but results are always final. There is no second choice. The following are good examples:

300 yards, 10 shots slow fire prone, 24 inch barrel, iron sights, "A" target with 4 inch "V" ring—score 50, 10V possible. Load 56 grains 4831, M1-173 grain bullet, Winchester-Western primer.

500 yards, 30 shots prone, 24 inch barrel, iron sights, "B" target with 12 inch "V" ring—score 150, 22Vs. Weather dark and rainy. Load 58 grains 4831, Sierra 190 grain OP match bullet, Winchester-Western primer.

I have now personally tested some 300 rounds of various loads based on 4831 including those listed above. Firing was at

200 yards prone and in most cases results obtained were comparable to that of the above shooters. By comparable, I mean 200 yard groups of 2½ to 3 inches. I also satisfied myself that for finest accuracy all straight loads should be fired with magnum-type primers. The powder worked best with heavy bullets. The 168 grain bullet was the lightest that would produce consistent results in a 26 inch barrel. 150 grain bullets may be used for plinking but not if a high degree of accuracy is desired. At 200 yards the width of a light bullet group may not greatly exceed that of a heavy bullet but the vertical component will be twice as great. Duplex loads can be used to accommodate standard primers. I had good results with the M1 bullet when using 12 to 15 grains 4895 over the primer and following it with enough 4831 to bring the total charge to 55 grains. 3031 may be substituted for 4895. For such loads the rule should be to use more 4831 when using the heavier bullets and more 4895 when using the lighter bullets. It is possible that a half and half charge will work well with the 150 grain bullet in the longer barrels. Barrel length is important because muzzle blast must always be considered, particularly when extreme accuracy is desired. If muzzle blast is too heavy, it may deflect the bullet. Always fill the case when using duplex loads but do not compress.

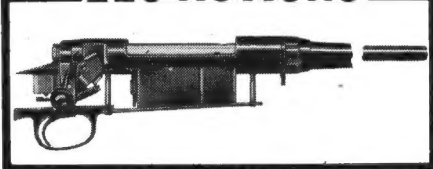
At the present time I know of only three large-rifle magnum-type primers. They are the Winchester-Western 120-8½, Cascade Magnum, and Federal 215. Since Winchester-Western increased the intensity of their primers to make them compatible with ball powder, they can now be included in the magnum category. I have used many types of Cascade primers but this particular large rifle magnum primer is one I have yet to try. The Federal 215 is one of the really excellent primers for magnum type loads but it appears to have the smallest distribution of the three. This may be due to the premium price which they charge for it. As long as low-priced 4831 is on the market, hot primers will be in heavy demand.

It will be noted that one of the loads mentioned is a compressed load. In theory, a heavily compressed load should not produce optimum results but this may be one more case where theory does not apply. In order to determine what happened to the powder during such compression, I loaded some cases that had not yet been resized so as to make bullet removal easier. Examination of the powder showed that very few grains had been distorted, none had been broken, and only 3 or 4 grains in the vicinity of the neck had been flattened. The grains apparently have enough resiliency to withstand considerable compression. However, the base of the bullets, even that of the covered-base Sierra 190 grain bullet, showed imprints but the imprints were tiny and probably would not affect the bullet's flight.

How has 4831 changed so as to become more compatible with small cartridge loads? I do not know but I can speculate. For one thing the powder is very dry. In this case dryness is favorable because it increases the rate of burning in a fairly large-sized grain of powder. Do not moisten it. It is possible the powder has been exposed to sunlight for extended periods of time. And the coating on this particular batch of reclaimed powder looks different from that of the original. This may be due to exposure or, I'm told, to abrasion resulting from handling operations such as sieving, packaging, etc. It would be interesting to

(Continued on Page Fourteen)

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PRESIDENT'S CORNER

Another year of bench rest shooting is about completed and from all observations it has been a successful year. I believe that more registered matches were held than ever before in bench rest history. The improvement in accuracy has been terrific, records have been made that were considered impossible, and particularly in the Varmint and Sporter classes.

The Varmint and Sporter National Championship Matches had the largest attendance to date and records fell during these matches. Our membership is increasing, comments and suggestions have come in at a rapid rate and this surely indicates a healthy and growing organization. May I BEG OF ALL YOU MEMBERS to do everything possible to **keep it that way**.

From personal observations of the matches in the Eastern Region and reports from other Regions, the fine sportsmanship shown by the shooters is the outstanding highlight of the year. I saw one relay caught in a thunder shower and those who did not disqualify had groups so large that they were completely out of the aggregates, and it was accepted. I saw another relay at another match that was rained out and shooting was not completed. A decision was made by the referees and, as always, some benefitted and some are badly hurt,

but everyone accepted the decision with no complaints. Sportsmanship like this is most gratifying to everyone and especially to the officers and clubs.

The individual honors for patience and sportsmanship go to Ernest Scafuri of Detroit, Michigan. In September of 1961 Ernie shot a record set of targets at Reed's Run Rifle Range in Ohio. The targets were sent in for measurement and the backers were rejected by the measuring committee because of vertical dispersion that had not been normal on former targets from Reed's Run. Ernie entered a protest and I appointed an investigating committee of three to approve or disapprove the backers. This investigation was not possible until April of 1962 and was made at the first registered match at Reed's Run. The committee found that prior to the match in question, Reed's Run had rebuilt the backer system into a type that produces vertical dispersion as well as horizontal travel and that beyond doubt the backers were correct. By this time eight months had elapsed and efforts were made to have these targets measured as soon as possible. I have never tried so hard to do something and accomplished so little in so long a time, and actually no one was to blame. These targets were delayed by sickness, mismailing, vacations and a number of other delays, all unavoidable. After all this, on August 29, 1962, Ernie was informed that he holds the World Record for five ten-shot matches at 200 yards and his M. O. A. aggregate for this is .3010. This is a beautiful set of targets and I want to congratulate Ernie on establishing a new record, and compliment him for his patience and fine sportsmanship.

Until November,

Bob Hart

MORE NEW BENCH REST RECORDS

World Record Bench Rest Rifle Record certificates have recently been issued to the following new record holders:

To (Mrs.) Emily Shilen, Dryden, New York, at the Chippewa Rifle Club's shoot on their Easton, Ohio, range, June 16-17, shot a .2546 minute-of-angle aggregate average for five 5-shot matches at 100 yards with Heavy Varmint Rifle to beat Lawrence Rucker's old record of .2579 MOA. Mrs. Shilen shot the 222½ cartridge in a Hart barrel on Shilen action, gunsmithed and stocked by Ed Shilen. Her scope was a Unertl 24X and her load, 27 grs. Ball C with B&A 6S 51 gr. bullets and Remington primers. The gun weighed 13 lbs.

To David A. Walker, Sr., Louisville, Ky., who on June 23, 1962 at the Fraternal Order of Police range, Richmond, Indiana, shot a .2353 minute-of-angle aggregate average for five 10-shot matches at 100 yards; and also a .2894 minute-of-angle National Match Course aggregate—an average for five 10-shot matches at each 100 and 200 yards. His 100 yard aggregate beat L. Rucker's old record of .251 MOA and his NMC aggregate beat Ferris Pindell's .3106 MOA. Mr. Walker shot the .219 Don cartridge in Hart barrel on Mauser '98 action, gunsmithed by J. D. Melton and stocked by the owner. His scope was a 33X Unertl and his load, 26.8 grs. 3031 with his own 51.3 gr. 6S bullets and Remington primers.

At a Chippewa Rifle Club shoot at Easton, Ohio, July 14 and 15, Ed Shilen, Dryden, N. Y. gathered a fistful of Light Varmint and Sporter class record certi-

fications. In Sporter class he became co-holder with Donald McClure of the NMC aggregate (five 5-shot matches at each 100 and 200 yards). Shilen's aggregate average is .5443 MOA and McClure's .5447. Shilen also set a new 200 yard aggregate record of .5118 M.O.A. to beat A. J. Freund's old record of .5988 MOA. In Light Varmint class Shilen changed the whole aggregate record book with 100 yd. aggregate of .5104, 200 yd. aggregate of .4998 and NMC aggregate of .5051 MOA. Shilen shot the same outfit in both the Sporter and Light Varmint classes; the 6m/m International cartridge in a Hart barrel on one of his own Shilen actions which he gunsmithed and stocked. His scope was an 8X Unertl and the gun with scope weighed 10 lbs. His load was 37 grs. Ball C with B&A 6S 72 gr. bullet and CCI Magnum primers.

At this same Chippewa Rifle Club shoot in July, E. L. "Gene" Beecher, Cleveland Heights, Ohio, made a new Light Varmint 5-shot group record at 200 yards of .4376 inch, which beats Warren Page's old record of .5726 inch. Gene shot the 222 Magnum cartridge in Douglas barrel on Sako action with a 12X Unertl scope, the complete outfit weighing 8 lbs. 7 oz. His load was 27.3 grs. Ball C powder with B&A 6S 51 gr. bullets and RWS primers.

THE SCOPE POWER QUESTION

By John B. Sweany

At the 1962 annual meetings of the NBRSA Directors, the magnification of scopes for all classes of guns was made unrestricted—any power on any class gun may be used in all National Matches. Some eyebrows went up higher than a Society Matron's nose when this news got out—and needlessly for lack of proper information. The facts and fallacy of scope POWER will follow.

THE FACTS: Let's look at the .22 long rifle scores and groups being made by experts all over the nation. These experts are the TOP shooters, and we will limit them here to the younger, stronger eyes of 20/20 or better and who need no crutch of correction. Rule out the older eyes that can no longer see with Iron Sights; this fellow **has** to have help to see.

The scores of these TOP shooters and their group size are practically the same with both Iron and Scope sights. Consider 10 first class .22 long rifle guns for top-notch competition. Put them on bench-rest with return-to-battery rests. There need be no sights at all on these guns for this test; the rests they are on are already pointed at the target and there will be no weather conditions. Under this set-up it will be found that the AVERAGE accuracy of these 10 guns is 0.8 inch or minute-of-angle, but let's call it "inches" from here on. The limit of accuracy of these 10 guns is EIGHT TENTHS inch; that is the very best they can do under ANY circumstances.

Any one of our Top-Notch shooters with .22 long rifle can get 0.8 inch groups with these guns and IRON SIGHTS—no question—they are DOING it. With any scope sight they will make scores about the same, maybe a little bit bigger, maybe a little bit smaller, but very little either way. **THIS IS FACT. WHY???** Because the guns are **limited** to 0.8 inch, they are unable—except by chance—to do any better under any conditions until better ammunition is made for them. NO SIGHTS can improve their accuracy.

It is fallacy for a shooter with fine eyes to think that with scope magnification he can make better scores than with Iron

Sights. HE CAN SEE BETTER WITH SCOPE SIGHTS, there is no doubt or question about that, but that fact does not improve the accuracy of a gun that is limited to 0.8 inch. IT IS FALLACY TO THINK THAT IF HE CAN MAKE AN 0.8 GROUP WITH A 6X SCOPE, HE CAN MAKE A 0.4 INCH GROUP WITH A 12X SCOPE. It is fallacy for a range master at a Turkey shoot to limit the power of scopes used. The POWER of the scope is NOT what will win or lose the turkey; its luck and the man behind the gun.

There will be a lot of men who will jump on my statement that a person can SEE BETTER WITH MORE POWER. That you can. But HOW MUCH?

Make a chart by drawing some BLACK lines on white background. They need be no more than an inch long. Draw 5 or 6 lines as close as you can to .125 inch wide with spaces between them .125 inch wide. Do the same with lines .0625 wide and spaces the same. Then some more with about .030 to .040 line and space width.

It's just great to test if you have a scope such as BALVAR 6-24. Set up your test sheet at 100 yards and in good light; better sunlight. Train the scope on the test sheet and find out what you can see. It will be on this order with a 20/20 eye:

My eyes for all except the last year or two have been 20/20 and until some years ago, better than that. In a slightly overcast sky, I can now see .125" lines and spaces and COUNT them with, sometimes with an 8X, but most of the time with a 12X power. My wife has 20/20 keen distant vision and she can count .062 lines and spaces with about 20X; maybe a little better with 24X. The .035 lines were a blur black to her, as were the .062 lines to me. With her naked eye, she could count lines and spaces .8 inch or a little less distant apart, so that she has better than a minute of angle distant vision. Plenty of younger (50 years or less) shooters can see better than that but the rest of this letter will be for a minute of angle eye.

Perform the above tests for yourself. Some of you are going to find you can read finer lines and some not so good. The AVERAGE shooter with 20/20 eye will find that he can distinguish about .650 inch at 100 yards with a 20 to 30 power scope. The resolution of the scope and the acuity of the shooter's eye are the limiting factors. This same eye can see better than that by the following method. On the bottom or the side of the black square on our BR target, bring the cross hair up or over until there is just the **ti**niest bit of light between the cross hair and the target edge. That line of light is of less width than the spaces you can count; how much I do not know, but it is some.

This all resolves to the fact that an AVERAGE shooter with a 20X or 30X scope has an advantage of from .040 to .080 MINUTE OF ANGLE over a shooter with up to about 10X. This is not a rule that will hold for everyone, as noted above, scope resolution and personal acuity will vary either way. Another way to put it: The SAME shooter MAY beat himself by something like .040 to .100 minute of angle by using a 25X scope instead of an 8X.

Your Directors at the '62 National meeting had this in mind when they lifted the limit on scope power. They further had in mind that a shooter can own all four class guns and have just ONE fine scope to change from one gun to another without need to buy scopes of different power for different class guns, and in that case also be

forced to buy a spotting scope to see his shots if he uses a 6X or even a 10X scope.

You doubting Thomas shooters, read this over again. Go and talk to some TOP NOTCH .22 long rifle men. Look up the records made—the AVERAGE records made with both Iron and Any sights—and see for yourself that scope power alone cannot improve the accuracy of a gun.

You will have added pleasure and confidence in being able to SEE where your shots are hitting through the scope you are using rather than to have to reach and look through a spotting scope. Don't let prejudice fool you. Your Directors are all able men of high intelligence and experience and you will find that they have given you a FAVOR and NOT a FAULT.

Bench Rest Match Reports

DRYDEN, NEW YORK

From a VERY belated report we get the following information about the New York State Championship Varmint and Sporter class matches at Dryden, New York, June 23-24. A total of 28 competed.

Heavy Varmint Class Aggregates

24 competitors

	100 yd	200 yd	NMC
Ed Shilen (N. Y.)	.315	.450	.383
L. S. Rucker (Ohio)	.305	.498	.401
Gordon Harris, Mass.	.321	.525	.423

Light Varmint Class Aggregates

7 competitors

Douglas Hall, Mass.	.536	.675	.605
Donald McClure, Pa.	.626	.661	.644
Clarence Detsch, Pa.	.730	.596	.663

Sporter Class Aggregates

7 competitors

Donald McClure, Pa.	.499	.600	.633
Clyde Bonnel, N. Y.	.607	.659	.633
Artie Shaw, Conn.	.594	.902	.748

SEATTLE, WASHINGTON

Following is the listing of high ranking aggregates fired in the registered shoot conducted by the Seattle Precision Shooters, Inc., August 11-12.

Unlimited Rifle Class

9 competitors

	100 yd	200 yd	NMC
L. E. Wilson	.408	.463	.435
M. Oakley	.4296	.537	.483
E. Fromback	.592	.420	.507
R. Meister	.550	.551	.520

25 Lb. Class Rifle

9 competitors

Ed Fromback	.245	.406	.325
Allen Bench	.377	.512	.445
Ray Speer	.447	.448	.447
Roy Meister	.480	.458	.469

Heavy Varmint Rifle Class

14 competitors

Amos Fromback	.437	.407	.422
Ed Fromback	.471	.430	.450
Roy Norman	.457	.525	.491
Roy Meister	.374		

Light Varmint Rifle Class

9 competitors

Ed Fromback	.463	.531	.497
M. Oakley	.535	.517	.526
Amos Fromback	.509	.554	.531
Allen Bench	.435		

CUSTER, SOUTH DAKOTA

At the registered shoot in Custer, So. Dak., 12 shot the Unrestricted Bench Rifle and Heavy Varmint Rifle matches on Aug. 11th and 14 fired in the Sporter Class Championship matches Aug. 12th. The high ranking aggregates were:

Unrestricted Bench Rifle

	100 yds	200 yds	NMC
Olin Hollingsworth	.738	.664	.701
Clair Hollingsworth	.844	.643	.743

Jack Williams	.838	.680	.759
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Heavy Varmint Rifle Class

Frank Minucci	.6425		.6167
Olin Hollingsworth	.758		.6705
Bruce Pheasant	.582		.6767

Harold Bing		.644	
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Clair Hollingsworth	.476		
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C. C. Hankins	.562		
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Sporter Class Championship

Harold Bing		.752	.746
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Carl Sands	.582		.810
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C. C. Hankins			.847
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John Anderson	.706		
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Jack Williams	.714		
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Clair Hollingsworth		.731	
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Gordon Pecha		.886	
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In Sporter Class, Bing shot a 6m/m in shortened 250/3000 case, Hart barrel, Remington action, with load of 29 grs. 3031, 75 gr. Sierra bullets and CCI Mag. primers. Sand shot a 243 with Douglas barrel, load of 32.5 grs. 3031, 75 gr. Sierra bullets and Rem. primers. Hankins used the new Remington 6 X 47 with 26 grs. Ball C, 73 gr. B&A bullets and Rem. primers.

HOT SPRINGS, ARKANSAS

Thirteen competed in the August 25th registered shoot conducted by the Hot Springs Gun Club on their new Indian Mountain Range under ideal conditions.

Bill Taylor, Hot Springs Gun Club, exhibited and shot a 50 lb. unrestricted rifle of the barrel-block type, the only gun of its kind in Arkansas. He fired a .4413 100 yard aggregate, a .4634 200 yd. agg. and his smallest group (10 shots at 100 yds.) was .278".

The Varmint and Sporter class aggregate winners were:

Varmint Rifle Class (8 competitors)

	100 yds	200 yds	NMC
Tom Gillman	.4472	.3966	.4219
Barbara McDonald	.4990	.6525	.5782
Jimmy Lockett	.6472	.5976	.6224

Sporter Class (4 competitors)

A. McDonald	.7410	.6790	.7100
E. Mayfield	1.0143	.6194	.8169

YREKA, CALIFORNIA

Twenty shooters competed in one or more of the four rifle classes of the West Coast Championship benchrest matches at Yreka, Calif., Sept. 1 and 2, 1962. The 200 yard stage for all classes was fired on Saturday and the 100 yard stage on Sunday. The high ranking aggregates were:

Unrestricted Rifle, Open Class

12 competitors

	100 yd	200 yd	NMC
L. E. Wilson	.3164	.5217	.4191
Roy Norman	.4782	.5171	.4977
M. M. Oakley	.4608	.5415	.5012

Unrestricted Rifle, Limited Class

(7 competitors)

Jack Bridwell	.5074	.5709	.5392
Virginia Jones	.4880	.6168	.5524
Geo. Hendricks	.5874	.6935	.6405

Heavy Varmint Class

(15 competitors)

L. E. Wilson	.5062	.5571	.5317
Ray Jones	.4802	.7406	.6104
Allen Hobbs	.6500	.5730	.6115
Geo. Hendricks	.6500	.5827	.6164

Light Varmint Class

(9 competitors)

L. E. Wilson	.5862	.9154	.7508
Richard Silva	.6928	.8631	.7780
M. M. Oakley	.9012	.6592	.7802

ST. LOUIS, MISSOURI

The Bench Rest Rifle Club of St. Louis held their final Varmint Rifle match September 9th with 10 shooting Heavy Varmint class in the morning and 8 shooting Light Varmint class in the afternoon. Conditions in the morning were good in between heavy rain squalls. In the afternoon

(Continued on Page Twelve)

Bench Rest Match Reports

(Continued from Page Eleven)

the sky was overcast and conditions looked fine, but the groups belied the looks. Top ranking aggregates were:

Heavy Varmint Class

	100 yd	200 yd	NMC
A. J. Freund	.383	.4585	.420
Wm. Schellert	.483	.481	.482
James White	.422	.557	.489
A. M. Freund	.420		

Light Varmint Class

	100 yd	200 yd	NMC
A. J. Freund	.796	.6585	.727
Don Kramer	.728	.7525	.740
Leo Fieser	.776	.7065	.741

September 29th the club held a night match for Heavy Varmint class with only six competitors. Robert Shaffer, shooting his first benchrest match, placed third in the NMC aggregate. The winners were:

100 yd 200 yd NMC

A. J. Freund	.391	.361	.3760
A. M. Freund	.441	.6195	.5302
Robert Shaffer	.575	.494	.5385

EASTON, OHIO

Thirteen competed in the Chippewa Rifle Club registered shoot Sept. 15 and 16. Five 5-shot and five 10-shot matches at 100 yards were fired Sat. and the same course was repeated at 200 yards on Sunday, all with heavy bench rifles.

Omar Rinehart was first in the two day 5-shot match aggregate with .326 MOA, Bernice McMullen 2nd with .327 and Clyde Yockey 3rd with .332. In the 10-shot matches the top ranking aggregates were:

100 yds 200 yds NMC

George McMullen	.457-7th	.455	.456
Omar Rinehart	.456-6th	.481	.469
E. Smith	.486	.467	.476
Clyde Yockey	.393		
Bernice McMullen	.396		

PLAINFIELD, NEW HAMPSHIRE

Fifteen competed in the unrestricted bench rifle shoot at Plainfield, N. H. September 16th. Top ranking aggregates for the National Match Course were:

100 yd 200 yd NMC

Dr. A. H. Garcelon	.501	.678	.589
Crawford Hollidge	.494	.805	.649
Robert Stinehour	.530	.768	.649
C. R. Leighton	.594	.712	.653
Ira Farnsworth	.566	.771	.668

TULSA, OKLAHOMA

At a Tulsa Bench Rest Rifle Club unregistered daytime shoot on the John Zink Range September 16th, 11 shot heavy bench rifles, 10 Varmint rifles and 2 Sporters. Shooting conditions were better than average but the shooting was not outstanding. High ranking aggregates were:

Heavy Bench Rifles

	100 yd	200 yd	NMC
Larry Engelbrecht	.475	.594	.534
Henry Barton	.460	.634	.547
William Coleman	.458	.681	.559
Horace Powers	—	.608	—
Mildred Coleman	—	.619	—

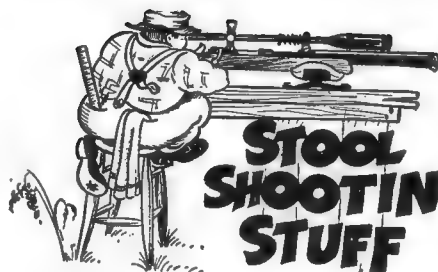
Varmint Rifles

Jack Morgan	.551	.462	.506
J. D. Hale	.513	.538	.525
A. W. Ham	.524	.776	.650
V. E. Brown	—	.685	—

RICHMOND, INDIANA

Ten competed in a daytime, registered unrestricted bench rifle match on the Police Range at Richmond, Ind., September 23rd. The course of fire was five 5-shot matches and five 10-shot matches, all at 100 yards. Conditions are reported to have been "rough." The high ranking aggregates went to:

	5-shot	10-shot	Grand
Ferris Pindell	.2670	.3286	.2978
Floyd Gibson	.2576	.3732	.3154
Cline Deere	.2714	.3664	.3189
Al Roberts	.3166	.3412	.3289



Dear Phil:

Here I am back in the good old U. S. A. riding down the Maine turnpike. I am a little apprehensive as I hear the radio comments of the hurricane "Daisy" damage. Merrie and I have been to Newfoundland moose hunting and it was only last Thursday when we came out of the woods we heard that "Daisy" might become a threat to Cape Cod and other parts of the coast that are relatively not as important to us but of course just as important to the many people who have homes in the path of the storm. There was nobody at home to button up for us this year so I guess we will have to take the damage as we find it when we get home in another nine or ten hours.

As we boarded the ferry at Port-Aux-Basques, Newfoundland, we found that our car and trailer was but one of some fifty others, most of whom were returning from the hunt. It was indeed a colorful sight as car after car or truck after truck pulled into line to await their turn to board the ferry. There were a very few who were business men or tourists and the almost entire boat load was made up of hunting parties.

While we were waiting in line, we were interviewed by employees of the Wild Life Management Service who inquired about hunting conditions, and inspected our licenses but after that simple procedure was over, the car occupants wandered up and down the line looking at the various trophies. Some of the hunters had been planning their trip for a long time and had applied for caribou licenses because I saw some mighty beautiful racks. It whetted my appetite for such a trophy next year. Merrie says before I start talking about next year's hunt, I had better concentrate a little and tell you about this one, so here goes.

As you recall, I went last year by airplane with a group of friends from the Cape. This year the trip just didn't seem to get organized. The fellow who owned the plane was busy with it earning a livelihood which consists of running a little airline from Hyannis to the Islands of Martha's Vineyard and Nantucket. A few years ago, the activity would have slowed up enough by the middle or latter part of September so that the airplane could be spared but people are beginning to enjoy more and more the beautiful weather in the late fall on the Cape and there is still a lot of activity around.

Charlie Kingsley had planned to join us on the party and when the plane trip collapsed, I know that he was disappointed, too. Ever since last year, I had been toying with the possibility of a tenting trip into that area and I was keen to show Newfoundland to Merrie, also. I told Charlie at the Plainfield shoot that I thought the idea was feasible and since he was a little pressed for time, it would make sense for him to fly to Stephenville, Newfoundland by airline where we could pick him up.

Merrie and I already had the trailer partly packed up when Charlie called through two days after Plainfield to say

that he would join us so it was little effort to add a few extra things. We planned to depart on Saturday morning and catch the Monday night ferry at North Sydney, Cape Breton Island. On Tuesday, we would drive to the hunting area and spend that evening getting the camp set up, after picking up our guides. Merrie was to pick up Charlie at Harmon Field on Wednesday night.

Since this is a shooters column instead of one for tourists, perhaps I had better get back into that department for a little while. Last year I took along my Taylor and Robbins 7 m/m Magnum. It did the job alright but was a little heavy and the barrel a little long and the twist wasn't right for the heavy bullet required for moose. I hear a lot of comments about a moose not being hard to kill, or hard to hit, or hard to find. It is all true sometimes and those sometimes can be very frequent. There is a wide variation of conditions encountered in moose hunting in Newfoundland. Some areas are pretty dense and a thirty yard shot might be the limit but then there are other occasions when you break out into a big open plateau where moose might be seen for a thousand yards or more, or you might want to shoot across one of the beautiful clear lakes that dot the area. It was because of those extreme variations in conditions that I began going over the features that I would want in a gun. I didn't leave myself time enough to do the best possible job with my armament but I came out pretty well. A simple job was to re-chamber a short 7X57 Mauser barrel to a Remington 280 which I loaded to maximum behind a 160 grain Nosler bullet. This was to be a reserve rifle for Merrie. Her main rifle and the one she actually shot her bull with was a Model 98 8 m/m with a stepped military barrel from which I removed the rear sight as well as cutting off the barrel in back of the first step. The chamber was opened up to a 30-06 size making the rifle actually an 8 m/m-06. The inside of the barrel was rough but it grouped very well using 56 grains of 4895 and a 175 grain Sierra bullet. Merrie still found it was shooting pretty accurately when she peeked through her 4X Redfield scope and placed the bullet nicely in the rib cage of a good fat 8 point bull that was trotting across the corner of a little bog at little more than 100 yards from where she was waiting and about to tune in her walkie-talkie to report her position. The bullet mushroomed beautifully with practically no meat destroyed and the lungs were hardly distinguishable.

I made up a rainy day rifle for myself very similar to Merrie's but the one which I used to kill my moose was an FN Magnum action which I had previously stocked for a 270. I decided I would like a 30 caliber better, and a few days before I left for the hunt, I got Ed Shilen to chamber it for the 308 Magnum case. I have had few rifles that were rushed as much as that one was as I only had a few hours to re-contour the barrel, re-inlet it into the stock, blue it, and target it. Newfoundland impressed me last year as being good country for the variable power scope and it was a simple job to mount a Buhler Micro mount base on the FN action and switch from one of my varmint rifles, my new 1" Redfield variable. I knew this to be a little bit of a gamble because the scope was equipped with a 1/2 minute Lee dot instead of the original post type reticle. I many times found myself in dense woods or in the morning or late evening when I couldn't pick up that dot very well; however, when the time came to have it pay off, it seemed to work alright.

By the time Charlie came in on Wednesday night's plane, the guides and I had camp fairly well buttoned up and a good wood fire going in the stove. Along with camp gear, I had included a little 3½ h. p. motor and from a fellow I had met in St. George's the year before, was able to rent an 18' canoe. This was a pretty important piece of kit to us and really not too hard to take into the camp site on top of my car. We used it almost every day to travel nearly three miles up the lake from our camp site which was located in a Province of Newfoundland park at Barachois Brook. The Canadian government does a fine job with these parks. There were several dozen sites available and occasionally other cars would come in and use some of them. Facilities were spotless and there is a permanent caretaker for the area. He gives you your permit and sees that you follow a few very reasonable rules. The only one that didn't seem to fall in that class was a restriction that prohibited sawing stove wood on the camp site; however, we got around that by letting the sawdust drop on the floor of the luggage trailer but we had to bring in the wood to the area from outside the camp boundary. This is not normally necessary in the summer period as wood is provided free as required for use in the outside fireplaces.

Charlie really didn't get the red carpet treatment when he got to Newfoundland. It was raining and it was still raining the following morning when we canoed up the lake. I had told him that the hills were moderate in height and not too bad to climb but the guides made me out a liar because they elected to go up one of them that day in spite of the rain, and I think mostly because quite a few moose had been shot down at the head of the pond the two previous days. It is hard to keep dry during that time of the year, especially in the rain and when the bushes are wet, because the soggy clothes drain in to your boots and all of the moisture doesn't come from the outside, either. The climb is so long and steep and the footing so difficult that you are soon wet from the inside if you perspire at all. We held up at about 11 o'clock just above a little lake but the raw winds and our wet clothes made waiting unpleasant. It was useless to go higher up because we would be above the cloud level and the atmosphere too thick and moist to shoot anything. We came back down over a rough trail marking the park boundary. It followed a true compass course and never detoured an inch from the right to the left as it came through some very rugged and precipitous country, where the footing had to be chosen most carefully. I guess Charlie decided that night that he didn't want a mountain sheep type of moose because the next morning, the guide took him along a very old wood road that followed the brook down. About two miles up from where we landed the boat, Charlie came up over a little hill covered with raspberry bushes and dead timber, and hardly 60 yards off found a cow moose chewing a branch of shrubbery as it stared back at him into his scope.

Merrie and I hunted many days as moose were shot all around us and we always seemed to be in the wrong spot. By that time, Charlie had loaned us his guide but it wasn't until I suggested that we hunt an area that I had been into last year that our luck changed. This area was toward a mile long lake and about the same distance from the main lake. A narrow trail joined the two and the morning after Charlie left, Merrie and I and one of the guides headed for that area. It was but a few minutes after 7:30 and we were only

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500 yards from the canoe and headed up a moderately steep trail when the action started. Merrie and the guide had passed through the middle branches of an 8" spruce tree that had fallen across the path and come out to quiet walking as the trail climbed above it. I had followed behind at a little distance, and being wider, had also taken more time getting through the tree. Merrie warned me that she and the guide had heard a stick crack and after a step, I saw a cow moose which perhaps had made the noise. We only had two more days to hunt and since everybody seems to feel that a cow is better eating than a bull, I thought I had better take advantage of that opportunity. At a little more than 100 yards off, that 180 grain Nosler bullet destroyed that moose's lungs completely, and as I said before, the small varmint size dot showed up clearly against the gray black rib cage area of that moose. It was only the one shot and we considered ourselves very lucky to be within 15 minutes with a downhill carry of the quarters to the canoe.

At that time, Merrie wandered off to hunt by herself, and within an hour had the good results that I mentioned earlier.

Within four hours, we had all the moose meat in camp and aboard the trailer, ready for Merrie to take it 75 miles to the nearest freezer and packaging point.

It looked like another rainy day was ahead, so the guides and I hurried to break camp. While the meat was being prepared, Merrie and I spent our time enjoying the facilities of a good motel and the Officers Club at Harmon Air Base.

I wish I could report that all was easy going after that but our good luck took a few low dips after we got all of the meat and camping gear packed and tied in place. If you look at the road map of Newfoundland, you'll find it is pretty much of a one road country, that one road running up from the south along the west side, past Harmon Air Base and then as it goes north and east, crosses the country and back toward the south again on the east side. The open end of the horse shoe is really open and although the road is wide, it is mostly unpaved and very, very rough. I thought my tires were pretty good but they weren't good enough to prevent sharp stones completely penetrating the right rear one on the car. Then both of the trailer tires gave up the ghost and forced me to buy two Canadian tires. One of them really hurt me because I had to drive 50 miles for it and pass out \$51 good American dollars for a tire that is little better than one you could get here for \$12 or \$15 at almost any roadside filling station. I guess I was considerably better off, however, than one of my contemporary hunters whom I heard the fellows tell about on the boat. He had taken his car into one of those very

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rough areas and had his trunk and car so full of camping gear that when he came to pack out, there was no place for the moose except on the top of the trunk deck. One bad pothole started a chain reaction which was disastrous. The trunk deck collapsed and to make matters worse, the rear wheels retracted to a horizontal position as the rear axle and housing let go. Some passing hunters took pity on the poor fellow and picked him up with his gear and one hind quarter of the moose to make the boat, leaving the balance of the moose meat and the car to the first claimer in Newfoundland.

How about some of our benchrest shooters considering a caribou and moose hunt next year?

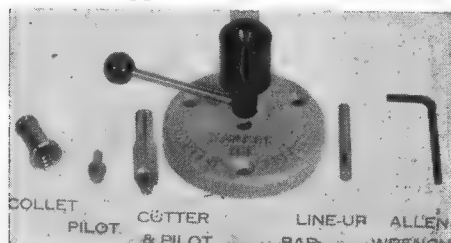
At this stage, I don't even know who won the Nationals so I am looking forward to a letter from you, Phil, and the columns of the Magazine to tell me what is going on.

Cordially yours,

Ernest Stahlhuth

NEW

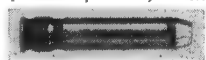
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4831 Powder

(Continued from Page Nine)

have the comments of a real powder chemist.

If one is to use this powder, it always seems wise to thoroughly mix it before pouring it into your final storage containers. Despite recent objections to such containers, I use sealed quart jars for this purpose. Mixing may represent extra work but I, for one, am glad to do it as long as the powder is available.

Price was also an important reason why I gave 4831 a second thought. My ancestors did not come from Scotland but they could have had something to do with the people who settled that land. Any powder that sells for less than fifty cents a pound is of interest to me, particularly when this shooter alone can burn up fifty pounds in the course of a year. I can readily see why powder manufacturers became interested in surplus powders as a raw material for ball powder. Such material could be reworked into ball powder at very little cost.

SPEER TARGET — 38 INDOOR PRACTICE AMMUNITION By E. M. Yard

INDOOR TARGET PRACTICE has been a subject of great interest to shooters for more than a century. I really don't know how far back it goes. Certainly Flobert breech cap weapons have been here a long while. Primer propelled wax bullets for rapid draw and fire practice are well known. Earlier this year a commercial hard wax wadcutter was introduced. This was fired from standard brass cartridge cases using a variety of primers. The magnum type pistol or rifle primers were suggested, or battery cup shot shell primers were suggested.

The newest idea is a hard plastic bullet fired by a regular large pistol primer from a special plastic case, just introduced by Speer Products Company of Lewiston, Idaho. They call them the Speer Target-38. They are superior to earlier plastic and pellet systems by actual field test. Accuracy is good enough for target practice.

Ballistics are impressive. PLEASE NOTE that 500 F.p.s. and over are attained with the pistol primer alone. Our chronograph tests are shown in an attached Table. The hard plastic slugs weigh 14.5 grains, and are not deformed when shot straight into boards. They will cause bodily damage to persons hit within indoor range distances up to 25 yards! Their adaptability to indoor target practice arises from the ease with which they may be retained within a range enclosure, and not from harmlessness. Treat these as you must treat all live ammunition.

The bullets themselves are made of a rather hard plastic, and are two diameter. The heel portion seats in the case, and a long bearing section rides the tops of the rifling. Bullet O. D. is a little less than .346". It takes the rifling, and in early firings shows a faint, but clear imprint. Above about 400 F. P. S. the slugs stabilize out to 25 feet, anyhow. At lower velocities many tumbled (more further on). At normal velocity of 400 to 500 F. P. S. they printed fairly well on target tagboard.

The cases are short, about .680" long, and will fit .38 S&W, .38 S&W Special, and .357 S&W Magnum chambers in revolvers. They are not intended for semi-automatic pistols. The samples ones were made of red plastic, .376" to .378" in diameter before firing. The primer pocket is sized for the large pistol primer, and is about .210" in diameter, and just loose enough so that the primers may be inserted

or expelled with finger force. No formal reloading tools are needed, as bullets may be pushed in when reloading, using only your fingers.

Both the plastic bullet and the plastic case are intended to be reused many times. Of our samples, the bullets seemed more durable. Two of the four cases we received as samples split full length, from primer pocket to mouth, on the very first discharge. The other two survived ten shots, and are still in good shape. We purposely continued to fire the split ones to see what would happen next. We got tired. Even though split, they worked for twenty more shots apiece. Gas leaks out of the crack, and velocity suffers a bit. Accuracy seemed normal.

To use the Target-38's, place some large pistol primers, anvils up, on a table. Press the red plastic cases over the primer by hand. Now push in a bullet with your fingers until the heel is all in the case. The round is ready to fire. They will feel a little sticky going in and extracting.

Impact point is very low. Aim about 1/2 target height over the black. If accuracy is poor, or bullets are tipping and tumbling, try a tighter gun, or another lot of primers. I have found with all of these primer propelled wax bullet systems that the larger bores of the S&W revolvers produce lower velocity, lower point of impact, and poor accuracy unless stronger primers are used than required in Colt guns. Find the right cap for your pistol.

Don't get the idea that these are quiet. You won't be able to use them in your apartment living room, unless the neighbors are in on it. You'll wake the baby in the next room, too. The noise is okay for cellar use, and won't bother anyone who doesn't take a dim view of pistol shooting.

These plastic slugs will rebound from hard surfaces with dangerous velocity. Treat them as regular ammo, and fire into a trap. A cardboard box with an open end (target is pinned over the opening) having a piece of Turkish toweling hanging freely behind it, forms a good trap. Change the towelling from time to time, as the pellets will soon bore through; better hang it doubled. Kraft board, thin door panels and the like will be penetrated. Oak flooring may be indented 1/16". They must be taken seriously.

Reloading is easy. A mechanical pencil point (lead retracted) will push the primer part or all of the way out. If the pencil doesn't push it far enough, finish the job with a small nail, or paper clip end. The rest we described. The primer pockets are just loose enough to allow primers to enter (and be expelled) by finger force. Bullets seat just as easily. Primers drive those slugs fast enough, so don't get silly ideas about putting in a powder charge. That stuff is for brass cases and backstop-ped ranges.

Once we found the things would shoot, and that they had good accuracy, we chronographed them. Speer said that velocity in excess of 500 F. P. S. was attained. With sound cases this is correct. We first tried the split hulls in our Colt S. A. .38 Special with 5 1/2" barrel, getting 425 F. P. S. A tight shell got 515 F. P. S. in my S&W .38-44 Outdoorsman with 6 1/2" pipe, averaging three shots. These used the CCI regular large pistol primer for push. In the Smith, two CCI Magnum L. P. primers went 655, and 615 respectively, and any megalomaniac who stands in front of one will learn he made a serious error. We know this doesn't sound like Maggie stuff, but this is enough to produce bodily injury and to smash up a lot of household goods.

Treat it that way.

Statistically, bullets were .346" diameter by .690" long, and weighed 14.5 grains varying only one tenth in four samples, two diameter cylindrical in shape. Cases were .376"-.378" in diameter, slightly eccentric as indicated, before firing, and .680" long. After firing they measure .378" all around (chambers were .380"), and show no signs of wear if they do not split. Flash holes are about .120" diameter to prevent primer set back. Once in a while an anvil will blow through, or will wedge in the opening. Primer pockets gradually loosen, letting primers slide in without effort, but remain tight enough for use through at least twenty firings, even with the case split full length. The cases weigh 11.5 grains. Primed load is about 31 grains. A box of these won't weigh you down.

These Target-38's will let you practice in most homes with your center fire revolver. They are accurate enough for meaningful drill, and long lived enough to bring them below rimfire cost. This is quite an improvement over the wax bullet systems. Best of all, no loading tools are needed; your pencil and fingers suffice.

(An Experimental Ballistics Associates report.)

BIGNESS By Ted Smith

The early pioneers were a rugged lot and they journeyed into a truly big country. Not only big in size but big in challenge. All of this was bound to make them conscious of big things and in time it must have grown to a point where anything had to be big to impress them. I notice this in myself and I notice it in my children.

Not too long ago my wife and I and our daughter Lola and her husband were driving along through the beautiful Rogue valley of southern Oregon. Our daughter's husband is a boy from Iowa; very conservative. We passed a field of truly tall, waving ensilage corn. I don't know if you've ever seen any but it grows about ten feet tall and very thick. While my daughter was no farmer, at least she recognized this corn as something big, and so took the opportunity to do a little bragging. "I bet they never grew corn like that in Iowa," she remarked to her husband. The Iowa boy hardly turned his head as he answered, "I don't know, I can't see the corn." Well, that sort of held her, but a little later on we passed through Ashland, Oregon towards Yreka, California where the highway climbs some five thousand feet up to the summit of the Siskiyou mountains. Lola's been to Iowa and she knew that there was nothing like this in such a flat-land state and again jubrance overcame caution and she remarked, "Well, they don't have mountains like this in Iowa." Again the Iowa boy hardly looked out as he answered, "They don't look so large to me." Even I was startled by this remark and quickly threw a glance around. Sure enough, riding the summit of the range there was very little above us and the mountains didn't really look big. Lola thought that one over a little and finally came back with, "Well they're big alright, it's just that hills on top of hills don't look big."

I think that deep down inside of all of us there is a certain desire to impress people with our bigness. I am continually reading it between the lines of the PS, especially in the slurs of some who feel that not only are we not getting bigger but actually we may be getting smaller.

True bigness may be a great and wonderful thing but we should not make too many sacrifices to get big, purely for the sake of being big. Let's don't relax our

rules purely for the sake of gaining volume if in the end it tends to lose the objective.

An incident which might indicate what I mean happened in our small-bore indoor club a few years back. Membership was falling off and something had to be done. We got our heads together and came up with the startling fact that very few new comers ever came back more than once or twice. We decided that the reason was that they came and saw our expensive equipment, and they saw the scores we could fire marked up against their scores and decided that they never could shoot like we could until they purchased some expensive equipment. We knew that they couldn't fire our scores even with our rifles but we decided on an experiment. We planned that the next time we had a visitor we would all fire low enough scores so that he would probably beat us. We estimated that about a 65 score for ten shots prone should do the trick and were ready and waiting when the unsuspecting victim showed up. We proceeded to fire our near 65's and he fired a 40. To make a long story short, he gave up, and we gave up. Some sacrifices are just too great. Our club stayed small in numbers but we went on to win both our own and the state postal league.

I think we can take a lesson from the corn. If all you want is ensilage, that's fine, but if you want some corn just remember it comes off small stalks. And take a lesson from Lola's hills too, for bullet holes on top of bullet hoels may not look big, but they're big alright. Big in the record book, and that's what counts.

TRIVIA

The following is simply a report of two incidents, offered for what they may be worth, if anything.

While at our hunting camp around mid-summer, and having my .257 Roberts rifle with me, I filled an empty Coleman lantern and stove fuel can of about one gallon capacity with water and fired at it at about 80 yards range, the can being set edgewise to the shooter. I expected the can to burst but was surprised at the rather spectacular results of that shot.

The load was 48 grains 4350 powder and a bullet home-swaged in Sierra .860" long jackets, with fairly deep hollow-point cavity and weighing 83 grains. This load had been earlier chronographed with an Avtron chronograph for an average of six shots velocity of 3396 f.p.s.

The shot hit at slightly right of center of the narrow side of the can. The can was completely opened up; there was very little bulging of the sides but except for the front seam at top and bottom, all the seams let go. The lengthwise seam of the can was away from the shooter and the can flew several feet TOWARD the shooter.

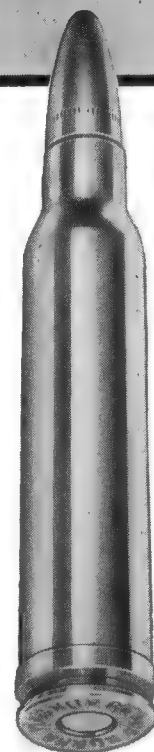
The exit hole of the bullet was directly in line with the entrance and not noticeably larger than the entrance hole, indicating that the bullet passed through the two sides of the can and approximately 6 inches of water while the can was still intact, and that the bullet did not expand in that passage.

More recently, while at camp with two others of our hunting party, I filled another of those Coleman fuel cans with water, set it up on the ground at about 40 yards range, and had one of the fellows shoot at it with his 30-06 rifle. Told him to hit it as nearly in the center as possible, the can again set edgewise to the shooter.

His load was 48 grains 3031 and a home-swaged hollow-point bullet made in Sierra 1.085 jackets and weighing 143

(Continued on Page Sixteen)

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22 caliber Sierra Jackets in .690 & .705" @ \$10.00 per M postpaid.

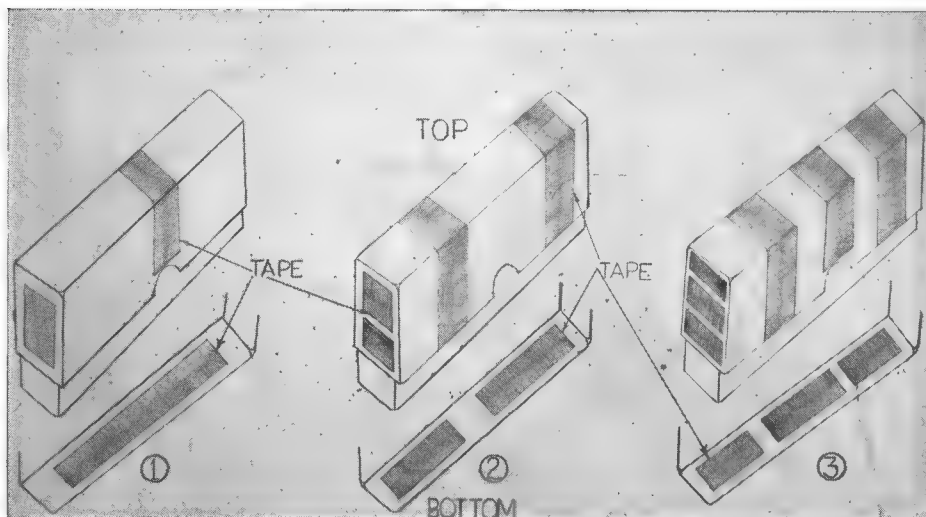
22 caliber Kampen Jackets in .705" @ \$8.50 per M postpaid.

3/16", .240" & 5/16" lead wire in 25 lb. spools. KENRU Precision Soft Swaged 22 caliber Bullets.

Enclose self addressed envelope with all inquiries. (member NRA & NBRSA)

KENRU RELOADING SERVICE

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Rochester 19, New York



Using colored tape to identify contents of cartridge boxes.

COLOR-CODE CARTRIDGE BOXES

To both color-code as well as touch-code plastic cartridge boxes of the same color, I place one, two or three strips of different colored Scotch Pressure Sensitive Tape on top, ends and bottom to differentiate caliber or bullet weight. Using various widths makes possible many combinations. The identification by touch is helpful when groping in a drawer or duffel bag.

Examples are:

50 cartridge sizes

222—Clear Plastic Box

50 grain —1 Black
53 grain —2 Red
55 grain —3 Blue

222 Mag Yellow Plastic Box

52 grain —1 Black
55 grain —2 Red
60 grain —3 Blue

The 20 cartridge sizes

.30-06—Yellow Box

125 grain —1 Red
150 grain —2 Blue
180 grain —3 Brown

.270—Clear Box

130 grain —1 Black
150 grain —2 Red
170 grain —3 Blue

Bruce R. Romig
Allentown, Pa.

Trivia

(Continued from Page Fifteen)

grains (a quite deep hollow point). Velocity, judged from Speer Handbook figures, should have been in the 2900 f.p.s. range.

He made a good center hit. A spray of water flew from the can but the can did not move. Upon examination the can was found to be bulged somewhat and the back seam was opened for between two and three inches. The bullet expanded very little in passing through. The bottom half of the can was still filled with water.

Since there was water still in the can, I took another shot at it with the .257 Roberts; this time with a load of 46 grains 4350 powder and a home-swaged bullet weighing 100 grains in the Sierra .890" long jacket, the core completely filling the jacket to a quite blunt point. The can was hit approximately center of its lower half.

At the hit the can flew sideways in an arc some four or five feet high and landed some ten or more feet from where it had been setting. Again, the can was completely opened up at the seams with only one short seam at top and bottom holding those can parts to the side section. In this case the bullet did expand and the exit hole was several times larger than the entrance. The impact velocity of the bullet was prob-

ably in excess of 3000 f.p.s.

These incidents illustrated a truly "explosive" disturbance when bullets at high velocity pass through confined water. They would also seem to illustrate the shock forces resulting from high-impact-velocity bullet wounds in animals. Too, they seem to support the published fact that this "explosive" reaction (and reaction it seems to be) does not result until bullets reach an impact-velocity in the 3000 fps plus velocity range.

From the personal point of view, I'd guess that the 100 grain bullet .257 load may be a fairly reliable killing load at short to mid-range on game of deer or average black bear size. Maybe I'll get a chance to find out about that before winter freeze-up.

P. H. T.

INFORMAL SUMMER GET-TOGETHER

for Experimental Ballistics Associates

Quite a few members of Experimental Ballistics Associates had expressed a desire to have a summer meeting devoted to talking guns in an informal atmosphere. Soren Glassow volunteered to make arrangements for this session to be held at Ed Yard's range near Lambertville, N. J. After canvassing those within a reasonable driving distance, August 18th, a Saturday, was selected as the date.

Thirteen members and three guests attended, and spent four to five hours in gun talk or watching others chronograph experimental loads. This was not a pre-arranged program or demonstration, just a few taking advantage of the facilities on hand to test some .30 carbine reloads and some .357 Magnum stuff. Jim Rudolph, who had come in from Springfield, Virginia, was especially interested in developing efficient, inexpensive screens for long range chronograph tests, and spent some time discussing this with Yard, Ceremsak and Schmidt.

Because of the informal nature of this get-together, only a sketchy account of what went on can be made. There was lots of conversation, and what we heard was pretty well blanketing the field of guns, bullets, and powders, with the emphasis on accuracy, performance and uniformity. Everybody must have had a good time of it, as most stayed until after 5 P. M.

This was a good chance for those living in this area to get acquainted and to learn each others interests. A major one of these is to chronograph factory and hand loads, both because of an interest in load development and to cut through some of the ballistic bull discussed in John Maynard's piece of the same name in the 1963 GUN DI-

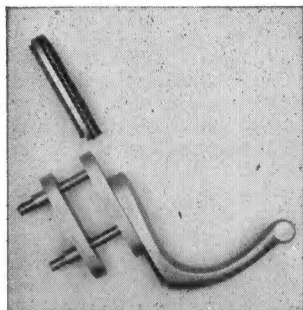
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It Is Supreme — It Is Accurate

MARK III Less sights	\$210.00
MARK III with 1-8 Min Parker-Hale sights	\$245.00
MARK III with Freeland sights	\$270.00



Freeland "61" International Butt Plate \$33.00

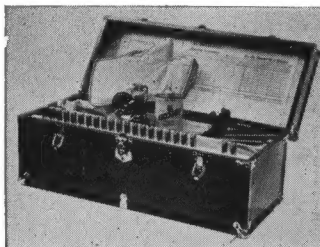
FREELAND Adjustable Aluminum Butt Plate ...	\$10.50
FREELAND Base Plate with Free Rifle Hook	\$15.75
FREELAND Butt Plate with Rubber Pad	\$13.00
FREELAND Free Rifle Hook Only	\$8.50
Butt Plate Spacer 1/2" or 3/4"	\$7.00



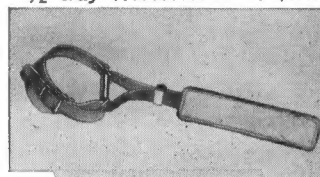
Swiss Type Palm Rest



All Angle Tripod



Freeland 30 Caliber Kit	\$13.50
48 3/4" Rifle Trunk	\$26.25
1/4 Opening small bore kit	\$20.00
Freeland 31" Accessory Kit, 1/2 tray	\$17.75



Mid-Century Cuff, Comb. \$8.50

Foam padded Freeland glove	\$5.25
Freeland SWISS TYPE PALM REST	\$18.50
BSA MARK III OLY. PALM REST ..	\$15.50
52D—OLY. PALM REST	\$14.50
FREELAND PALM REST, ball type	\$13.50
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All Angle GALLERY SPEC. TRIPOD	\$16.85
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FREELAND Carwindow attachment ..	\$7.50
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Freeland Superior Front Sight	\$15.00
Freeland Fore End Stops 52M, 52T, 75, 513, 40X and 521T	\$3.00
FREELAND 52-D FORE-END STOP ..	\$4.00
"A" SHOOTING MAT	\$22.00
Cedarwood Dewar Cart Block	\$2.55
Freeland Sling Keeper	\$1.25

Kneeling Pad	\$5.25
Freeland Recoil Spring	\$3.50
Freeland Lens Adapter	\$9.50
Freeland tapered cuff combination #61A	\$6.75
DeLuxe Cuff & Hook	\$4.25
61-S Olympic 1/4" cuff-sling	\$6.00
Freeland AF55L Exceptional Leather RIFLE CASE	\$35.00
10-X Rifle Coat	\$20.00

A FEW GUNS

40X Rem. ...	\$139.75	742C Carbine	\$139.95
521T Rem. ...	\$59.95	52-D Win. ..	\$145.00
K22 K38 ...	\$81.00	Sentinel	\$52.95
Sport King ...	\$52.95	Mod. 37 20 Ga.	\$36.95
Mod. 12 Std. ...	\$109.15	Mod. 70	\$139.00
Mod. 6903 ...	\$47.95	Ruger Single Six	\$63.25
513T Rem. ...	\$88.95		

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GEST. E. B. A. is not the Chronograph Owners Society of America, but it may come close to this. Designing the best possible ammunition, load development, is really the actual main focus of the majority of members. This, of necessity, requires accurate velocity measuring equipment and other test facilities, therefore the slant to chronographing occurs naturally.

A series of lectures and seminars on serious ballistics topics was suggested for future meetings. The first of these sessions is tentatively planned for October. Subjects will be chosen by the individual speaker. Time is to be allowed for questions and discussion following presentation of each paper. The first of these, as a trial balloon, will probably be held at Clinton Corners, N. Y. on the new Shooters Service, Inc. range facility (Mason Williams' place).

Those present for the August 18th meeting were: R. J. Ceremsak, William DeMott, E. A. Fisher, Soren Glassow, Robert Grace, C. H. Helbig, V. F. Roma, J. F. Rudolph, S. J. Schmidt, J. Schulhoff, George Wikle, Mason Williams and E. M. Yard. Weather was perfect, in distinct contrast to last year when the initial conclave got themselves soaked. From now on we'll pick only the nice days!

Edward M. Yard

FRANK A. HOPPE, INC. REORGANIZATION

Mrs. Willard C. Hartmann, newly elected President of Frank A. Hoppe, Inc., largest producers of gun cleaning equipment in the nation, pledged a continuation of the firm's policies of aggressive leadership and service to the industry.

Mrs. Hartmann, daughter of the late Charles A. Rasmussen, long-time Hoppe President and General Manager, was elected to succeed her father at a stockholders meeting September 11 in Philadelphia. She has been actively associated with the firm, maker of Hoppe's No. 9 Solvent, for eight years.

Also elected company officers were:

Mrs. Jane W. Rasmussen, widow of the former president and mother of the new one, Vice-President; and Roy Castor, employee for 44 years and acting General Manager for the last eight, Secretary-Treasurer and General Manager.

The Company plans no major policy changes following its reorganization, necessitated by Mr. Rasmussen's death in August.



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FIRE A
1 INCH
10 SHOT
GROUP
AT 100
YARDS?**



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CASCADE CARTRIDGE, INC. OPENS MEXICAN FACTORY

Richard A. Speer, President of Cascade Cartridge, Lewiston, Idaho, recently attended the inauguration of Cascade Cartridge, Internacional at San Luis Potosi, Mexico.

Mr. Ricardo Ortiz, Manager of the Mexican plant handled the ceremony arrangements. Attending were his eminence, Gov. Manuel Lopez Danila, General Frederico Amaya Rodriguez, Col. Antonio De La Puente, and many other notables.

The facility manufactures .22 rimfire ammunition. Production of other products is planned. Situated about 200 miles north of Mexico City, the product of this plant has already established an enviable reputation for high quality ammunition.

Mr. Eduardo Del Pozo, representing the Club Halcones, won a recent match using CCI .22 ammo. In fact, the top four places, men and women, were taken with this ammo. This was the first match in which the Cascade product was entered.

UNUSUAL GUN CLEANER

(Editor's note: Horace Reagan, Big Spring, Texas, passed along this choice bit of gun lore and it seems too good to keep under wraps.)

Saw a Browning 16 ga. auto in a repair shop recently in such a deplorable state of rust, filth and lack of finish on metal and wood that you'd swear it had spent a year or two stored in a rain barrel. When I commented on it to the gunsmith, he laughed and laughed—and told me the following:

The gun belonged to an old rancher and he habitually carried it on the floor of the pickup truck lying next to the cushion. He chewed tobacco and used the floor between his feet and the pedals for a spittoon. When the old gun wouldn't work to satisfy him (and he's killed more turkeys with

it than he's entitled to) he'd open the action, pour in part of a can of beer, slosh it around to wash out the dirt, tobacco, etc., rinse the works out with more beer, load it up and take off. He'd done it for years and said the gun always worked fine after he'd oiled it with beer.

AVAILABLE FROM DU PONT

Two pamphlets containing handloading information are now available from the Du Pont Company, one on shotshell handloading and the other for the rifle and handgun reloaders.

The shotshell handloading guide has been available for several months and contains very complete information, including Du Pont powder charges for all gauges, wad pressures for the various loadings and other pertinent information.

More recently available is the "Du Pont Handloading Information For Centerfire Rifle, Pistol and Revolver Ammunition." It contains load tables for most of the currently more popular calibers, both rifle and handgun.

The tables are arranged for caliber and popular bullet weight and list powder charges for each of all available Du Pont powders. In addition to the usual charge weight and muzzle velocity, the tables list seating depth of bullet and, more important, the pressures for each load.

Published pressures for some loads in some of the so-called HOT calibers are very close to the acceptable maximum 55,000 psi and having those pressure figures before one should impress anyone with the importance of the caution to start any published load at least 10% BELOW the published maximum charge. The loads may then be increased gradually as pressure indications permit.

Either or both of these handloading guides may be obtained at no cost by requesting them from: Explosives Department, Du Pont Company, Wilmington 98, Delaware.

38th World Shooting Championships

(Continued from Page Eight)

1138. Tying Andy but losing the creedmore was Evdokinov of U. S. S. R. Third was Tommy Pool, U. S. A. with 1136.

Scores and Equipment

	Prone	Rifle	Ammo
Anderson, U.S.A.	395	Rem.	.308
Spillman, Swiss	394	Tanner	7.5
Vogt, Swiss	393	Tanner	7.5
Kneeling			
Vogt, Swiss	386	Tanner	7.5
Mueller, Swiss	385	Tanner	7.5
Evdokinov, U.S.S.R.	384	Russ.	7.62
Standing			
Pool, U.S.A.	368	Rem.	.308
Laczny, Hungary	364	Russ.	7.62
Puckle, U.S.A.	363	Rem.	.308

300 Meter Survey Rifles Ammo

Russian	19	7.62 Russian	19
Hammerli-Tanner	12	.308	15
Johansson	8	7.5 Swiss	9
Remington	6	6.5 X 55	2
Schultz & Larsen	4	6.5 Russian	2
Finnish Lion	3	.30-06	1
Hammerli	1	240 Int.	1
Estonian	1		

(Comment on above: Johansson is a Swedish gunsmith. The 7.62 is the cartridge but not necessarily produced in U. S. S. R. 6.5 Russ. is the 7.62 Russ. necked down and used by 2 Russians until the wind picked up.)

Running Deer—Singles

Zakurenov, U. S. S. R.	229
John Foster, U. S. A.	228
Flodman, Sweden	227
Nikitin, U. S. S. R.	218

TRADING POST

Classified type ads; no display. Rates: — 10¢ per word per insertion, prepaid. Minimum charge \$1.00. Closing date for ads is the last Saturday of the month preceding publication.

Groups of figures, abbreviations and initials count as words. Hyphenated word counts as two words. Name and address of advertiser is counted. Use full words instead of initials and abbreviations and make your meaning entirely clear — get your money's worth.

WANTED: PRODUCT. Reilly Machine Works, 445 Western Avenue, Albany, New York.

FOR SALE: Set of B & A dies, 224, made about 3,000 bullets. Dies are perfect, with extra punches & Auto ejector. Ram for RCBS model A press. \$165.00. Will sell press for \$45.00. M. L. Schwab, 2515 N. Main St., Findlay, Ohio.

FOR SALE: .219 Don bench rifle by Taylor & Robbins. Reinforced Mauser action. Double set trigger. Hart barrel 1 1/4 X 1 X 28. 200 cases and straight line dies. Rifle weighs 17 pounds and was delivered in August 1962. Has been shot approximately 200 times. With Unertl 24X scope \$500.00. Without scope \$400.00. Mark Watson, Box 33, Fruitland, Maryland.

PRIMER IMPORTANCE

By Seely Masker

The primer, smallest component of the cartridge, can sometimes be the one controlling factor in an accurate load.

I believe the primer is overlooked by most handloaders, especially those who have not done considerable testing along these lines.

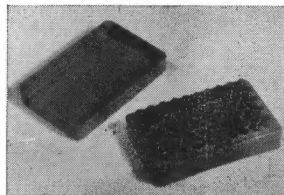
It has only been in the last few years that the different results obtained by a change in primers has become evident to me. Like many others, I have struggled along with the idea that as long as there was a loud bang and the bullet got out of the barrel, that the primer had done its work and that was the end of it. Nothing could be farther from the truth.

I will quote some loads in various calibers in which the primer made the difference between acceptable and poor accuracy.

1) In a heavy custom Douglas barreled .243 on a Springfield action, groups ran under 3/4 inch average with a load of 42 grains 4831, Sierra or Hornady 100 grain bullets and CCI Magnum primers. Other primers tried were CCI standard, Remington 9 1/2 and Federal, and with these the groups averaged 1 1/4 to 1 1/2 inch at 100 yards.

2) Another heavy custom Sako barreled .243 on FN single shot action performed about the same with a load of 46 grains 4831, Hornady 100 grain bullets, with CCI Magnum or Winchester No. 120 primers.

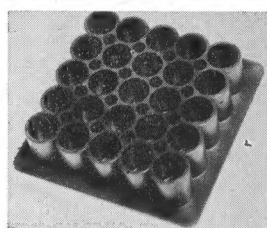
3) After these experiences I tried CCI Magnum primers in my heavy (18 lb.) custom .257 with Douglas barrel on M-70 action. The load was 42 grains 4350 with 117 grain Sierra or 120 grain Speer bullets. These primers in this rifle, with this load, were not the answer. Groups were over 1



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1 inch. Federal No. 210 primers did the trick and this load will average less than 3/4 inch.

4) A custom 30-06 hunting rifle averaged about 3 inches with loads of 58 grains 4831, 180 grain bullets and CCI 200 primers. With Remington primers the groups averaged less than 1 1/2 inch.

I could mention other instances where primers have been the deciding factor in an accurate load. Probably not always as much difference as in the aforementioned instances will be obtained, however, I believe that if enough testing is done it will be found that one certain primer will be an improvement over all the others. I do not believe that the powder used in the load has anything to do with it unless it happens to be a ball powder.

In instances No. 1 and No. 2, using 4831 powder, a CCI Magnum primer gave best accuracy. Since 4831 was used again in No. 3, the same primer was tried again but with poor results, indicating that 4831 powder and CCI Magnum primers do not necessarily go together. Same thing is indicated again in No. 4 instance.

My conclusion is that for every load there is a BEST primer, and the only way to determine which primer is best is through careful testing in the following manner:

Pick one bullet, one powder and one primer and stay with it, varying only the powder charge. After arriving at the best powder charge it is time to experiment with primers, and you will never be sure until you have tried them all. There are 10 different makes and types of primers that I can name right off and I'm sure there must be more. If you test 3 or 4 groups with each primer you will be busy for some little while.

After we find the best powder and best primer we can always start a search for the best bullet.

Oh yes, I hope you don't wear out that premium grade barrel before you find the right load. You DID! Oh well, just think of all the fun you had while you were doing it.

(Editor's note: Mr. Masker represents one school of thought regarding primer importance in handloads, and offers worthwhile report of some comparative test results in support of his conclusions. I personally recall only one instance in which the difference between two primers, all other components of the load remaining the same, made the difference between very mediocre and very excellent accuracy (this was reported on page 2 of June 1961 P. S.). I have not, however, conducted any planned program of comparative testing along this line. If some of you people do have recorded reports of such testing you will be doing all us handloaders a favor by making them available for publication.)

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Depth at butt: 7 inches
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3" Blank	10 ply	20.00
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3 1/2" Blank	25 ply	40.00
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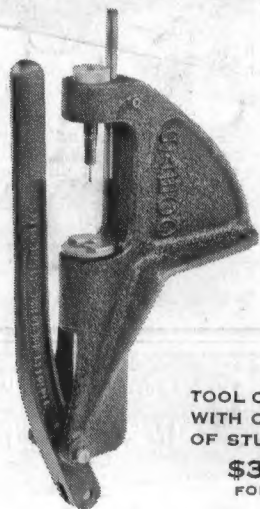
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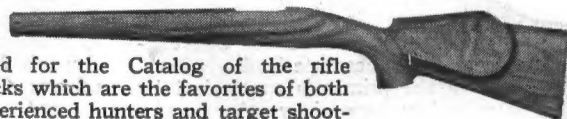
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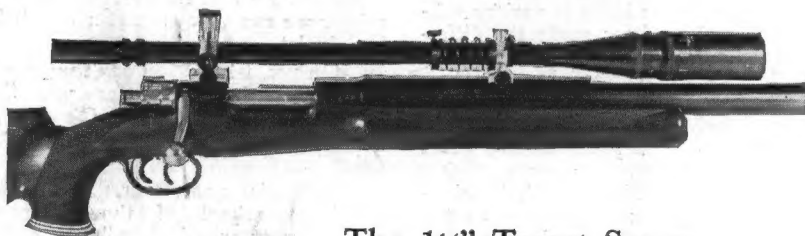
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